



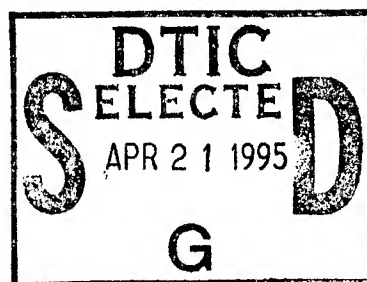
Defense Nuclear Agency
Alexandria, VA 22310-3398



DNA-TR-93-168-V2

**Johnston Atoll Plutonium Cleanup Project
Plant Modification and Operation
Volume 2—Annual Report Option Year 2
Appendix A**

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April 1995

Technical Report

CONTRACT No. DNA 001-90-C-0119

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1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE 950401		3. REPORT TYPE AND DATES COVERED Technical 921001 - 930524
4. TITLE AND SUBTITLE Johnston Atoll Plutonium Cleanup Project Plant Modification and Operation Volume 2—Annual Report Option Year 2, Appendix A			5. FUNDING NUMBERS C - DNA 001-90-C-0119 PE - 62715H PR - OH TA - OO WU - DH000100	
6. AUTHOR(S) Kathleen S. Moroney; John D. Moroney III and Nels R. Johnson				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) TMA/Eberline 5635 Jefferson Street, NE P.O. Box 3874 Albuquerque, NM 87109-3874			8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) Defense Nuclear Agency 6801 Telegraph Road Alexandria, VA 22310-3398 FCLH/Bramlitt			10. SPONSORING/MONITORING AGENCY REPORT NUMBER DNA-TR-93-168-V2	
11. SUPPLEMENTARY NOTES This work was sponsored by the Defense Nuclear Agency under RDT&E RMC Code B1310D OH OO 00001 LEEE 6420A 25904D.				
12a. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.			12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words) This report continues the documentation of the operation of TMA/Eberline's Segmented Gate System technology for removing mixed plutonium and americium contamination at DNA's Johnston Atoll site. Contaminated feed is conveyed under arrays of radiation detectors coupled with sophisticated computer software developed by Eberline Instrument Corporation. Segmented gates (chutes) on pneumatically-driven pistons move forward when contamination is detected to remove only the contaminated portion from the main flow of feed material. Only about one pint of contaminant is removed during each diversion event. At the JA site, a 98% volume reduction has been achieved, with the remediated soil cleaned to DNA's criteria for release for unrestricted use of 500 Bq/kg total transuranic alpha contamination and no "hot" particles of greater than 5000 Becquerels. The low level waste concentrate is expected to be packaged for shipment to an approved defense waste disposal site.				
14. SUBJECT TERMS Radwaste Minimization Radioactive Waste Management Radiological Remediation Technology			15. NUMBER OF PAGES 690	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT UNCLASSIFIED		18. SECURITY CLASSIFICATION OF THIS PAGE UNCLASSIFIED		19. SECURITY CLASSIFICATION OF ABSTRACT UNCLASSIFIED
				20. LIMITATION OF ABSTRACT SAR

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE

CLASSIFIED BY:

N/A since Unclassified.

DECLASSIFY ON:

N/A since Unclassified.

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CONVERSION TABLE

Conversion factors for U.S. Customary to metric (SI) units of measurement.

MULTIPLY _____ > BY _____ > TO GET
TO GET < _____ BY < _____ DIVIDE

angstrom	1.000 000 X E -10	meters (m)
atmosphere (normal)	1.013 25 X E +2	kilo pascal (kPa)
bar	1.000 000 X E +2	kilo pascal (kPa)
barn	1.000 000 X E -28	meter ² (m ²)
British thermal unit (thermochemical)	1.054 350 X E +3	joule (J)
calorie (thermochemical)	4.184 000	joule (J)
cal (thermochemical)/cm ²	4.184 000 X E -2	mega joule/m ² (MJ/m ²)
curie	3.700 000 X E +1	* giga becquerel (GBq)
degree (angle)	1.745 329 X E -2	radian (rad)
degree Fahrenheit	$t_K = (t_F + 459.67)/1.8$	degree kelvin (K)
electron volt	1.602 19 X E -19	joule (J)
erg	1.000 000 X E -7	joule (J)
erg/second	1.000 000 X E -7	watt (W)
foot	3.048 000 X E -1	meter (m)
foot-pound-force	1.355 818	joule (J)
gallon (U.S. liquid)	3.785 412 X E -3	meter ³ (m ³)
inch	2.540 000 X E -2	meter (m)
jerk	1.00 000 X E +9	joule (J)
joule/kilogram (J/kg) radiation dose absorbed	1.000 000	Gray (Gy)
kilotons	4.183	terajoules
kip (10000 lbf)	4.448 222 X E +3	newton (N)
kip/inch ² (ksi)	6.894 757 X E +3	kilo pascal (kPa)
ktap	1.000 000 X E +2	newton-second/m ² (N-s/m ²)
micron	1.000 000 X E -6	meter (m)
mil	2.540 000 X E -5	meter (m)
mile (international)	1.609 344 X E +3	meter (m)
ounce	2.834 952 X E -2	kilogram (kg)
pound-force (lbs avoirdupois)	4.448 222	newton (N)
pound-force inch	1.129 848 X E +2	newton-meter (N·m)
pound-force/inch	1.751 268 X E +2	newton/meter (N/m)
pound-force/foot ²	4.788 026 X E -2	kilo pascal (kPa)
pound-force/inch ² (psi)	6.894 757	kilo pascal (kPa)
pound-mass (lbm avoirdupois)	4.535 924 X E -1	kilogram (kg)
pound-mass-foot ² (moment of inertia)	4.214 011 X E -2	kilogram-meter ² (kg·m ²)
pound-mass-foot ³	1.601 846 X E +1	kilogram/meter ² (kg·m ³)
rad (radiation dose absorbed)	1.000 000 X E -2	** Gray (Gy)
roentgen	2.579 760 X E -4	coulomb/kilogram (C/kg)
shake	1.000 000 X E -8	second (s)
slug	1.459 390 X E +1	kilogram (kg)
torr (mm Hg, O°C)	1.333 22 X E -1	kilo pascal (kPa)

*The becquerel (Bq) is the SI unit of radioactivity: 1 Bq = 1 event/s.

**The Gray (GY) is the SI unit of absorbed radiation.

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Distribution /	
Availability Codes	
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A-1	

APPENDIX

JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 15-May-93

AVERAGE BACKGROUND COUNT RATE	0.78 ± 0.03 c/sec		
SORTER SOIL DENSITY	1.35 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	0.45 tons	110.6 tons	
MAXIMUM/SORT	5.5 kg	62.9 kg	
MINIMUM/SORT	0.8 kg	57.4 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.6%
EQUIVALENT SOIL-IN-GROUND	0.36 yd ³	87.6 yd ³	88.0 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	8,357 kBq		
MAXIMUM/SORT	643 kBq		
MINIMUM/SORT	2.4 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	2,570 kBq	2,315 kBq	
MINIMUM/SORT	362 kBq	14 kBq	
SPECIFIC ACTIVITY	0 Bq	-8 kBq	
	5,705 Bq/kg	21 Bq/kg	
WORK HISTORY			
WORK DAY START	04:30 AM	WORK DAY END	03:30 PM
PLANT START-UP	04:30 AM	PLANT SHUT-DOWN	03:30 PM
START SOIL PROCESSING	04:58 AM	END SOIL PROCESSING	02:46 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS	11.0 hr		
AVAILABLE HOURS	11.0 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	9.81 hr		
DOWN-TIME	1.19 hr		
TOTAL SYSTEM PAUSE	0.00 hr		
NONAVAILABLE HOURS	0.0 hr		
START-UP	0.47 hr		
SHUT-DOWN	0.73 hr		
PLANT PERFORMANCE	89.1%		
PRODUCTIVITY	89.1%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,197		
NONPROCESS RECORDS (Test, calibration, etc)	7		
20-SEC PROCESS RECORDS	1,765		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	1,478 AD=0 & MD=0 & MND>0		
SOME SORT	287 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	4	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	05:19:00	None
ACT_P <5 kBq	92 21.3%	07:46:00	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	17,650	09:40:40
2-SEC RECORDS WITH SORTS	432 (ACT_P >0 kBq)	11:31:40
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		
2 DETECTORS	80	83.3%
3 DETECTORS	12	12.5%
4 DETECTORS	3	3.1%
5 DETECTORS	1	1.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	96	
NET 2-SEC RECORDS WITH SORTS	336	
2-SEC PERIODS WITH NO SORTS	17,314	
AVG TIME BETWEEN 2-SEC SORTS	105.1 sec	

1-GATE SORTS	221	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	2	0.9%	-14000	0	-223	4000	21	4.9%
2	17	7.7%	-12000	0	-191	8000	195	45.1%
3	26	11.8%	-10000	0	-159	12000	70	16.2%
4	45	20.4%	-8000	2	-127	16000	29	6.7%
5	46	20.8%	-6000	15	-95	20000	26	6.0%
6	29	13.1%	-4000	60	-64	24000	12	2.8%
7	44	19.9%	-2000	177	-32	28000	14	3.2%
8	12	5.4%	0	331	0	32000	10	2.3%
TOTAL	221		2000	466	32	36000	9	2.1%
			4000	406	64	40000	4	0.9%
2-GATE SORTS	211		6000	185	95	44000	3	0.7%
DETECTR	SORTS	FREQ%	8000	105	127	48000	3	0.7%
8			10000	19	159	52000	4	0.9%
9	11	5.2%	12000	3	191	56000	2	0.5%
10	11	5.2%	14000	3	223	60000	4	0.9%
11	37	17.5%	16000	0	254	64000	4	0.9%
12	40	19.0%	18000	0	286	68000	2	0.5%
13	43	20.4%	20000	0	318	72000	3	0.7%
14	37	17.5%	22000	0	350	76000	3	0.7%
15	32	15.2%	24000	0	382	80000	1	0.2%
TOTAL	211		26000	0	413	84000	2	0.5%
			>28000	0	0	>84000	11	2.5%
			TOTAL	1772		TOTAL	432	

SUMMARY TOTALS

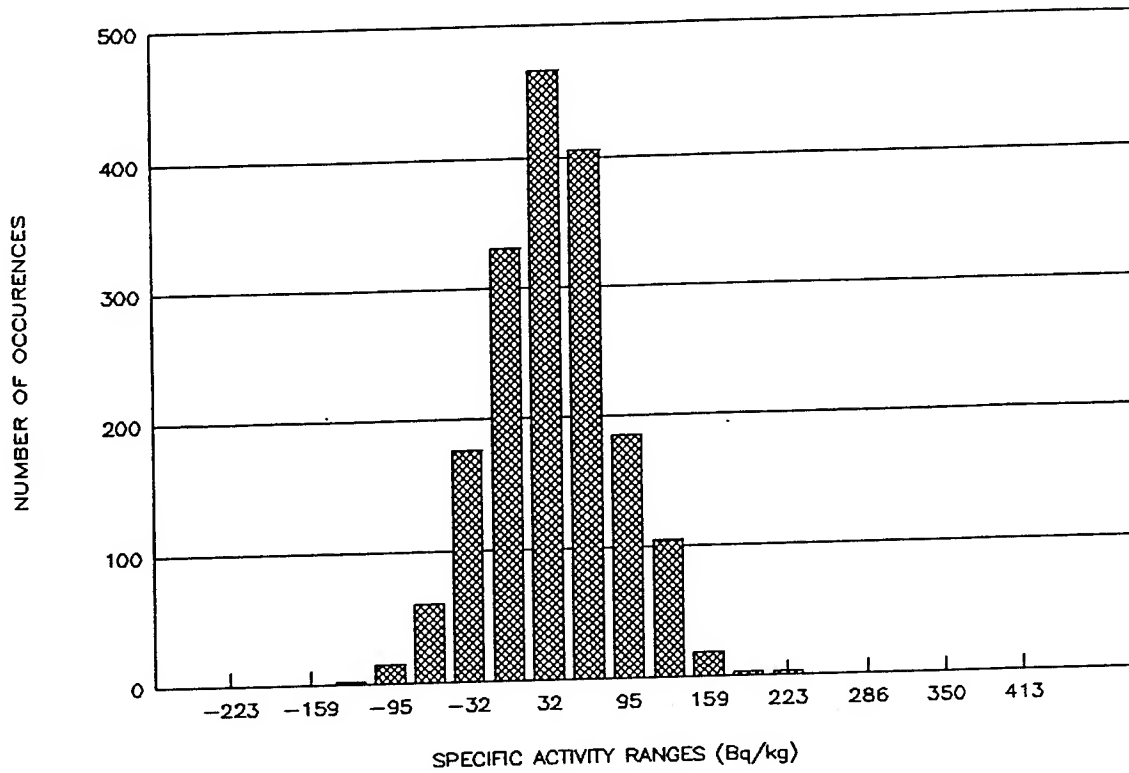
HOT PARTICLE EVENTS	453	SORTS BY ONE GATE ONLY	221
MULTIPARTICLE EVENTS	113	SORTS BY TWO GATES	211
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
2.00 Empty belt
3.00 Test (No process soil)

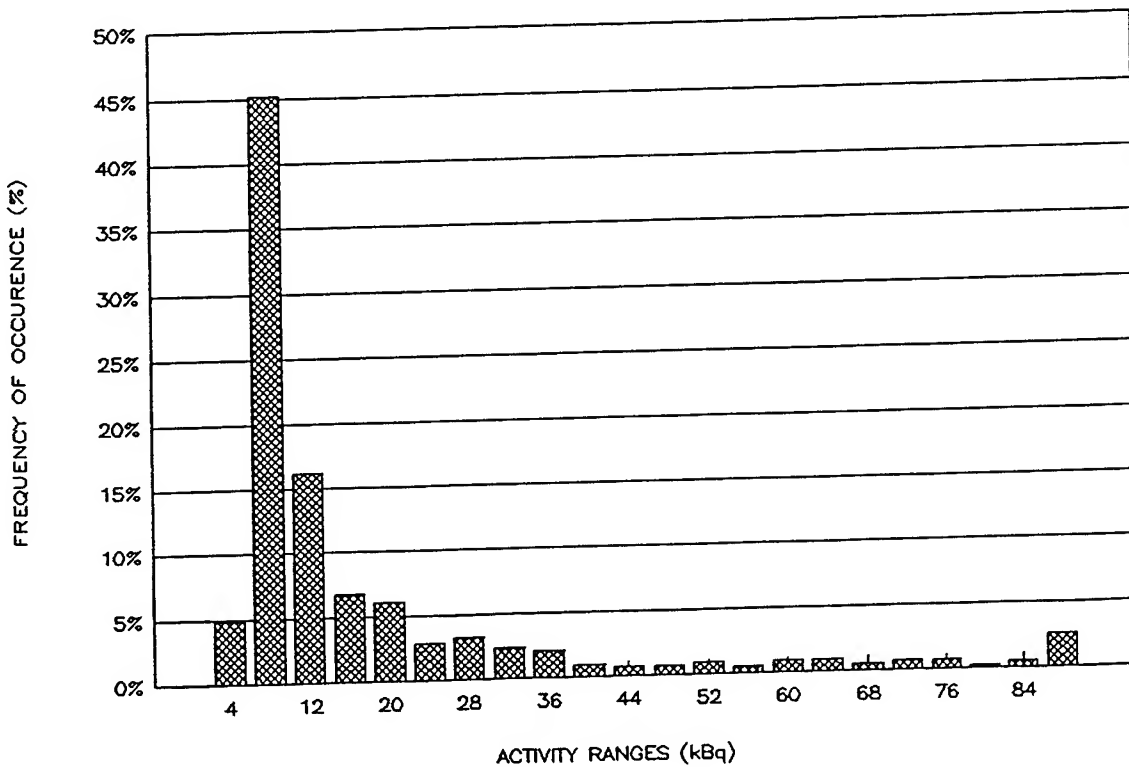
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 15-May-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 15-May-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 15-May-93

AVERAGE BACKGROUND COUNT RATE 0.80 ± 0.02 c/sec
 SORTER SOIL DENSITY 1.35 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.41 tons	110.8 tons
MAXIMUM/SORT	5.5 kg	62.9 kg
MINIMUM/SORT	0.8 kg	57.4 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		99.6%
EQUIVALENT SOIL-IN-GROUND	0.33 yd ³	87.8 yd ³ 88.2 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	11,479 kBq
MAXIMUM/SORT	656 kBq
MINIMUM/SORT	3.0 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	3,492 kBq	1,107 kBq
MAXIMUM/SORT	342 kBq	10 kBq
MINIMUM/SORT	0 Bq	-11 kBq
SPECIFIC ACTIVITY	8,469 Bq/kg	10 Bq/kg

WORK HISTORY

WORK DAY START	04:30 AM	WORK DAY END	03:30 PM
PLANT START-UP	04:30 AM	PLANT SHUT-DOWN	03:30 PM
START SOIL PROCESSING	04:57 AM	END SOIL PROCESSING	02:46 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.0 hr
AVAILABLE HOURS	11.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	9.82 hr
DOWN-TIME	1.18 hr
TOTAL SYSTEM PAUSE	0.00 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.46 hr
SHUT-DOWN	0.72 hr
PLANT PERFORMANCE	89.3%
PRODUCTIVITY	89.3%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 2,187

NONPROCESS RECORDS (Test, calibration, etc) 4

20-SEC PROCESS RECORDS

TOTAL SORT	0 MD>0 & MND=0
NO SORT	1,506 AD=0 & MD=0 & MND>0
SOME SORT	262 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	3
AD=0 & MD	0
AD<0 & MD	0
ACT_P <5 kBq	60 14.3%

UNEXPLAIN	PAUSE
TIME	TIME
05:45:01	None
08:41:01	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 17,680 10:59:41
 2-SEC RECORDS WITH SORTS 419 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 101 81.5%
 3 DETECTORS 18 14.5%
 4 DETECTORS 4 3.2%
 5 DETECTORS 1 0.8%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 124
 NET 2-SEC RECORDS WITH SORTS 295
 2-SEC PERIODS WITH NO SORTS 17,385
 AVG TIME BETWEEN 2-SEC SORTS 119.9 sec

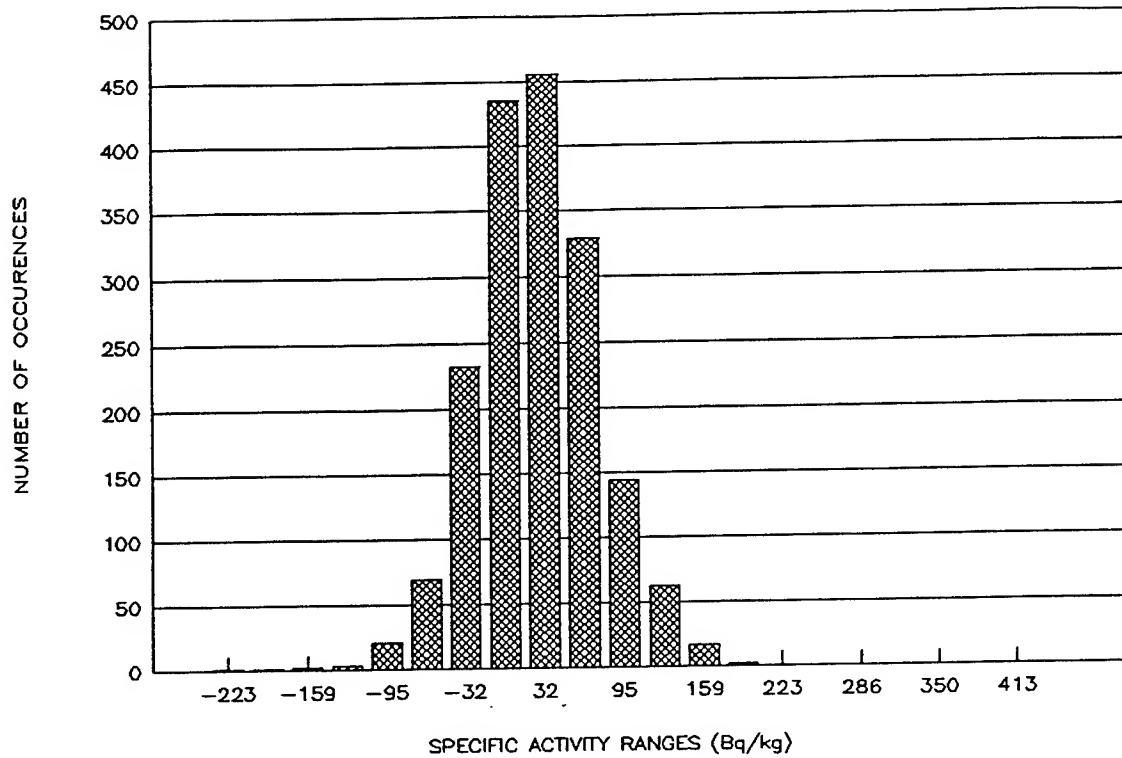
1-GATE SORTS	225	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	14	6.2%	-14000	1	-223	4000	14	3.3%
2	33	14.7%	-12000	1	-191	8000	175	41.8%
3	51	22.7%	-10000	2	-159	12000	75	17.9%
4	46	20.4%	-8000	3	-127	16000	27	6.4%
5	48	21.3%	-6000	20	-95	20000	12	2.9%
6	25	11.1%	-4000	69	-64	24000	20	4.8%
7	6	2.7%	-2000	232	-32	28000	12	2.9%
8	2	0.9%	0	435	0	32000	11	2.6%
TOTAL	225		2000	456	32	36000	7	1.7%
			4000	329	64	40000	4	1.0%
			6000	144	95	44000	2	0.5%
2-GATE SORTS	194		8000	62	127	48000	0	0.0%
DETECTR	SORTS	FREQ%				52000	4	1.0%
8			10000	16	159	56000	6	1.4%
9	18	9.3%	12000	2	191	60000	4	1.0%
10	31	16.0%	14000	0	223	64000	4	1.0%
11	41	21.1%	16000	0	254	68000	3	0.7%
12	44	22.7%	18000	0	286	72000	7	1.7%
13	41	21.1%	20000	0	318	76000	2	0.5%
14	18	9.3%	22000	0	350	80000	2	0.5%
15	1	0.5%	24000	0	382	84000	3	0.7%
TOTAL	194		26000	0	413	84000	25	6.0%
			>28000	0	0	>84000		>84
			TOTAL	1772		TOTAL	419	
SUMMARY TOTALS								
HOT PARTICLE EVENTS			401		SORTS BY ONE GATE ONLY	225		
MULTIPARTICLE EVENTS			118		SORTS BY TWO GATES	194		
DISTRIBUTED EVENTS			0					

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

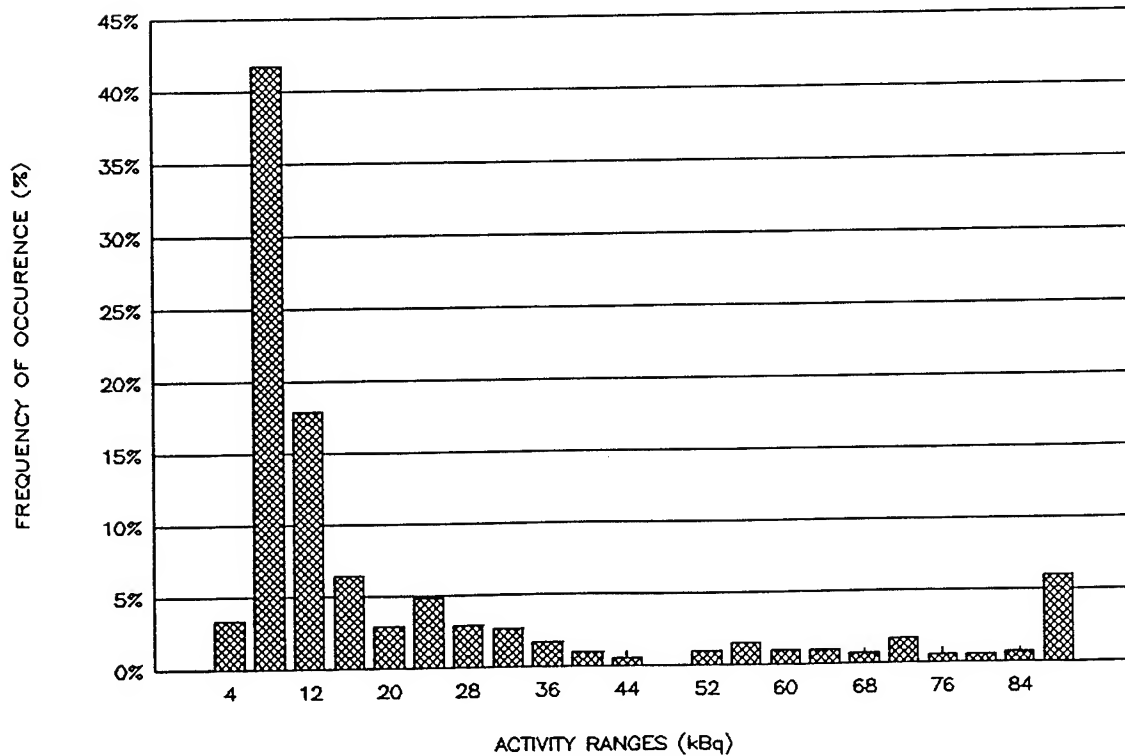
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 15-May-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 15-May-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 14-May-93

AVERAGE BACKGROUND COUNT RATE	0.78 ± 0.04 c/sec		
SORTER SOIL DENSITY	1.35 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	0.53 tons	115.6 tons	
MAXIMUM/SORT	7.1 kg	62.9 kg	
MINIMUM/SORT	0.8 kg	55.8 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.5%
EQUIVALENT SOIL-IN-GROUND	0.42 yd ³	91.7 yd ³	92.1 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	10,445 kBq		
MAXIMUM/SORT	719 kBq		
MINIMUM/SORT	2.9 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	3,321 kBq	4,677 kBq	
MAXIMUM/SORT	486 kBq	22 kBq	
MINIMUM/SORT	0 Bq	-7 kBq	
SPECIFIC ACTIVITY	6,241 Bq/kg	40 Bq/kg	
WORK HISTORY			
WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:09 AM	END SOIL PROCESSING	05:13 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS	11.5 hr		
AVAILABLE HOURS	11.5 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	10.26 hr		
DOWN-TIME	1.24 hr		
TOTAL SYSTEM PAUSE	0.76 hr		
NONAVAILABLE HOURS	0.0 hr		
START-UP	0.16 hr		
SHUT-DOWN	0.28 hr		
PLANT PERFORMANCE	89.2%		
PRODUCTIVITY	89.2%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,369		
NONPROCESS RECORDS (Test, calibration, etc)	19		
20-SEC PROCESS RECORDS	1,847		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	1,520 AD=0 & MD=0 & MND>0		
SOME SORT	327 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	2	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	12:37:58	09:24
ACT_P <5 kBq	105 20.1%	16:57:58	11:59

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 18,470
 2-SEC RECORDS WITH SORTS 522 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 117 88.6%
 3 DETECTORS 15 11.4%
 4 DETECTORS 0 0.0%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 132
 NET 2-SEC RECORDS WITH SORTS 390
 2-SEC PERIODS WITH NO SORTS 18,080
 AVG TIME BETWEEN 2-SEC SORTS 94.7 sec

1-GATE SORTS DETECTR	SORTS	263 FREQ%	ACT_ND (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT (#)	FREQ%	ACT_P (kBq)
1	4	1.5%	-14000	0	-223	4000	25	4.8%	4
2	21	8.0%	-12000	0	-191	8000	246	47.1%	8
3	35	13.3%	-10000	2	-159	12000	77	14.8%	12
4	47	17.9%	-8000	8	-127	16000	43	8.2%	16
5	63	24.0%	-6000	6	-95	20000	30	5.7%	20
6	45	17.1%	-4000	28	-64	24000	17	3.3%	24
7	38	14.4%	-2000	109	-32	28000	9	1.7%	28
8	10	3.8%	0	270	0	32000	9	1.7%	32
TOTAL	263		2000	461	32	36000	4	0.8%	36
			4000	463	64	40000	6	1.1%	40
2-GATE SORTS		259	6000	273	95	44000	7	1.3%	44
DETECTR	SORTS	FREQ%	8000	128	127	48000	8	1.5%	48
8			10000	54	159	52000	6	1.1%	52
9	11	4.2%	12000	30	191	56000	5	1.0%	56
10	25	9.7%	14000	15	223	60000	1	0.2%	60
11	45	17.4%	16000	10	254	64000	6	1.1%	64
12	46	17.8%	18000	4	286	68000	5	1.0%	68
13	61	23.6%	20000	3	318	72000	2	0.4%	72
14	44	17.0%	22000	2	350	76000	2	0.4%	76
15	27	10.4%	24000	0	382	80000	1	0.2%	80
TOTAL	259		26000	0	413	84000	0	0.0%	84
			>28000	0	0	>84000	13	2.5%	>84
			TOTAL	1866		TOTAL	522		

SUMMARY TOTALS

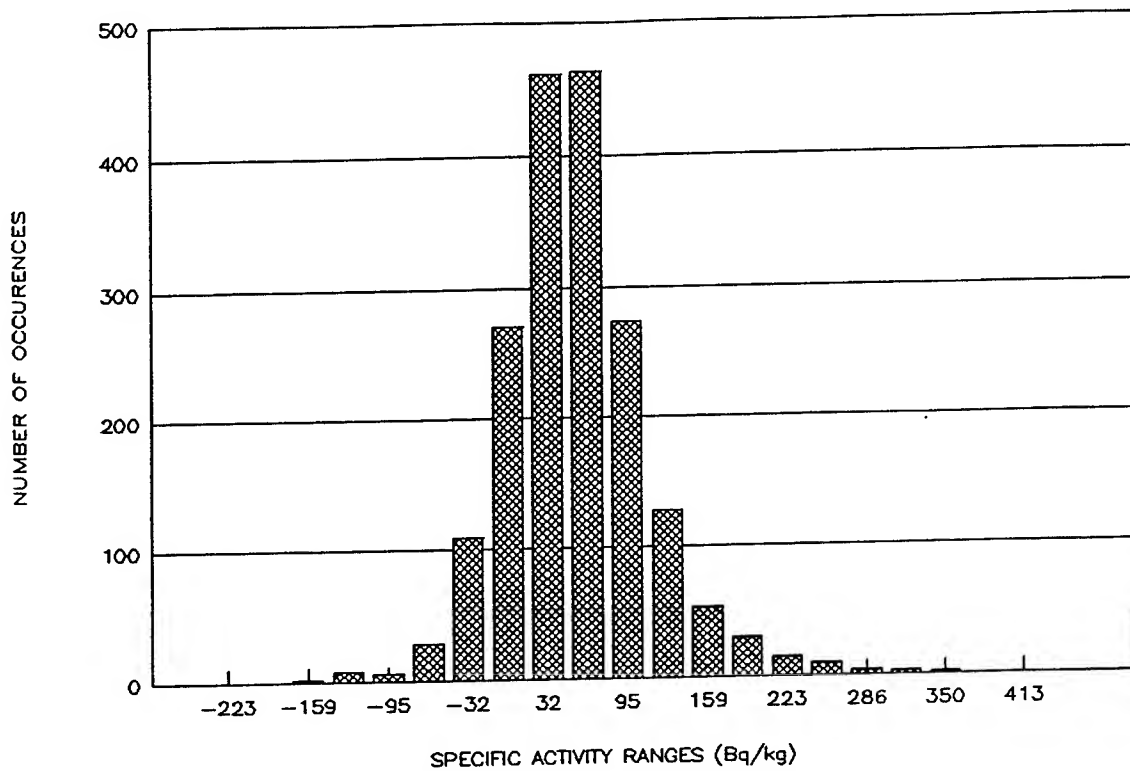
HOT PARTICLE EVENTS	521	SORTS BY ONE GATE ONLY	263
MULTIPARTICLE EVENTS	149	SORTS BY TWO GATES	259
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 14-May-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 14-May-93

AVERAGE BACKGROUND COUNT RATE 0.79 ± 0.03 c/sec
 SORTER SOIL DENSITY 1.35 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.50 tons	115.4 tons
MAXIMUM/SORT	4.7 kg	62.9 kg
MINIMUM/SORT	0.8 kg	58.2 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		99.6%
EQUIVALENT SOIL-IN-GROUND	0.40 yd ³	91.5 yd ³ 91.9 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	8,014 kBq
MAXIMUM/SORT	332 kBq
MINIMUM/SORT	3.0 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	2,629 kBq	3,748 kBq
MAXIMUM/SORT	184 kBq	18 kBq
MINIMUM/SORT	0 Bq	-8 kBq
SPECIFIC ACTIVITY	5,235 Bq/kg	32 Bq/kg

WORK HISTORY

WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:09 AM	END SOIL PROCESSING	05:12 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.5 hr
AVAILABLE HOURS	11.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.24 hr
DOWN-TIME	1.26 hr
TOTAL SYSTEM PAUSE	0.76 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.15 hr
SHUT-DOWN	0.29 hr
PLANT PERFORMANCE	89.0%
PRODUCTIVITY	89.0%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,340
NONPROCESS RECORDS (Test, calibration, etc)	23

20-SEC PROCESS RECORDS	1,843
TOTAL SORT	0 MD>0 & MND=0
NO SORT	1,519 AD=0 & MD=0 & MND>0
SOME SORT	324 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	5
AD=0 & MD	0
AD<0 & MD	0
ACT_P <5 kBq	87 17.5%

UNEXPLAIN	PAUSE
TIME	TIME
08:01:59	09:24
08:29:19	11:59

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	18,430	10:08:19
2-SEC RECORDS WITH SORTS	497 (ACT_P >0 kBq)	14:04:59
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		14:42:19
2 DETECTORS	98 83.1%	
3 DETECTORS	16 13.6%	
4 DETECTORS	3 2.5%	
5 DETECTORS	1 0.8%	
6 DETECTORS	0 0.0%	
7 DETECTORS	0 0.0%	
8 DETECTORS	0 0.0%	
TOTAL	118	
NET 2-SEC RECORDS WITH SORTS	379	
2-SEC PERIODS WITH NO SORTS	18,051	
AVG TIME BETWEEN 2-SEC SORTS	97.3 sec	

1-GATE SORTS	259	ACT_MD	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	12	4.6%	-14000	0	-223	4000	21	4.2%
2	43	16.6%	-12000	1	-191	8000	234	47.1%
3	42	16.2%	-10000	2	-159	12000	78	15.7%
4	60	23.2%	-8000	6	-127	16000	50	10.1%
5	37	14.3%	-6000	10	-95	20000	30	6.0%
6	33	12.7%	-4000	46	-64	24000	14	2.8%
7	24	9.3%	-2000	147	-32	28000	15	3.0%
8	8	3.1%	0	313	0	32000	7	1.4%
TOTAL	259		2000	478	32	36000	5	1.0%
			4000	401	64	40000	3	0.6%
2-GATE SORTS	238		6000	266	95	44000	6	1.2%
DETECTR	SORTS	FREQ%	8000	105	127	48000	3	0.6%
8			10000	55	159	52000	2	0.4%
9	22	9.2%	12000	18	191	56000	3	0.6%
10	35	14.7%	14000	10	223	60000	3	0.6%
11	47	19.7%	16000	6	254	64000	2	0.4%
12	55	23.1%	18000	1	286	68000	1	0.2%
13	42	17.6%	20000	1	318	72000	4	0.8%
14	25	10.5%	22000	0	350	76000	2	0.4%
15	12	5.0%	24000	0	382	80000	2	0.4%
TOTAL	238		26000	0	413	84000	3	0.6%
			>28000	0	0	>84000	9	1.8%
			TOTAL	1866		TOTAL	497	

SUMMARY TOTALS

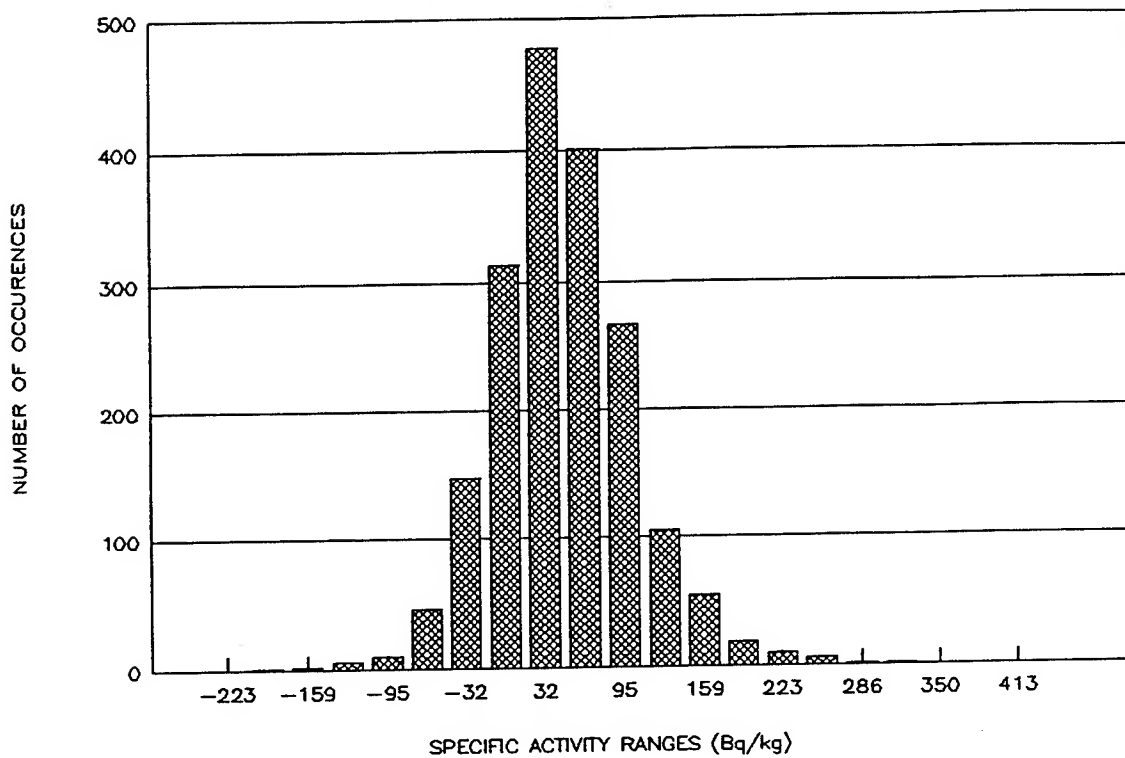
HOT PARTICLE EVENTS	504	SORTS BY ONE GATE ONLY	259
MULTIPARTICLE EVENTS	127	SORTS BY TWO GATES	238
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

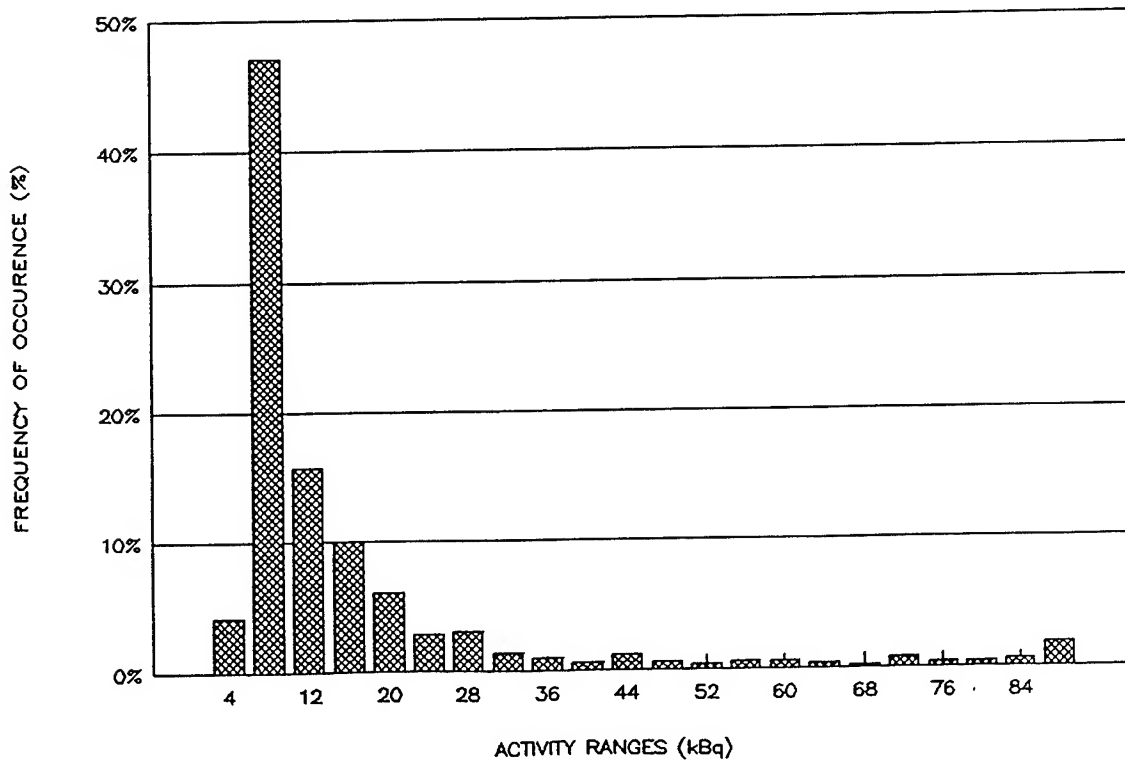
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 14-May-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 14-May-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 13-May-93

AVERAGE BACKGROUND COUNT RATE	0.79 ± 0.03 c/sec		
SORTER SOIL DENSITY	1.35 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	0.55 tons	121.6 tons	
MAXIMUM/SORT	6.3 kg	62.9 kg	
MINIMUM/SORT	0.8 kg	56.6 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.5%
EQUIVALENT SOIL-IN-GROUND	0.44 yd ³	96.4 yd ³	96.8 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	11,872 kBq		
MAXIMUM/SORT	1,328 kBq		
MINIMUM/SORT	2.9 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	3,839 kBq	5,096 kBq	
MINIMUM/SORT	804 kBq	17 kBq	
SPECIFIC ACTIVITY	0 Bq	-8 kBq	
	6,959 Bq/kg	42 Bq/kg	
WORK HISTORY			
WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:13 AM	END SOIL PROCESSING	05:00 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS	11.5 hr		
AVAILABLE HOURS	11.5 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	10.79 hr		
DOWN-TIME	0.71 hr		
TOTAL SYSTEM PAUSE	0.00 hr		
NONAVAILABLE HOURS	0.0 hr		
START-UP	0.22 hr		
SHUT-DOWN	0.50 hr		
PLANT PERFORMANCE	93.8%		
PRODUCTIVITY	93.8%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,482		
NONPROCESS RECORDS (Test, calibration, etc)	2		
20-SEC PROCESS RECORDS	1,942		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	1,596 AD=0 & MD=0 & MND>0		
SOME SORT	345 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	1		
0<AD<1kBq & MD>0	2	UNEXPLAIN	PAUSE
AD=0 & MD	1	TIME	TIME
AD<0 & MD	0	10:05:53	None
ACT_P <5 kBq	101 18.7%	13:30:33	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 19,420 14:35:33
 2-SEC RECORDS WITH SORTS 540 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 111 79.9%
 3 DETECTORS 23 16.5%
 4 DETECTORS 4 2.9%
 5 DETECTORS 1 0.7%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 139
 NET 2-SEC RECORDS WITH SORTS 401
 2-SEC PERIODS WITH NO SORTS 19,019
 AVG TIME BETWEEN 2-SEC SORTS 96.9 sec

1-GATE SORTS		278	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	5	1.8%	-14000	0	-223	4000	24	4.4%	4
2	23	8.3%	-12000	1	-191	8000	241	44.6%	8
3	47	16.9%	-10000	0	-159	12000	79	14.6%	12
4	54	19.4%	-8000	1	-127	16000	48	8.9%	16
5	58	20.9%	-6000	4	-95	20000	32	5.9%	20
6	35	12.6%	-4000	17	-64	24000	25	4.6%	24
7	40	14.4%	-2000	106	-32	28000	13	2.4%	28
8	16	5.8%	0	277	0	32000	7	1.3%	32
TOTAL	278		2000	409	32	36000	6	1.1%	36
			4000	508	64	40000	11	2.0%	40
			6000	363	95	44000	3	0.6%	44
			8000	173	127	48000	8	1.5%	48
			10000	53	159	52000	5	0.9%	52
			12000	19	191	56000	4	0.7%	56
			14000	9	223	60000	4	0.7%	60
			16000	2	254	64000	6	1.1%	64
			18000	2	286	68000	1	0.2%	68
			20000	0	318	72000	1	0.2%	72
			22000	0	350	76000	3	0.6%	76
			24000	0	382	80000	1	0.2%	80
			26000	0	413	84000	1	0.2%	84
			>28000	0	0	>84000	17	3.1%	>84
			TOTAL	1944		TOTAL	540		

SUMMARY TOTALS

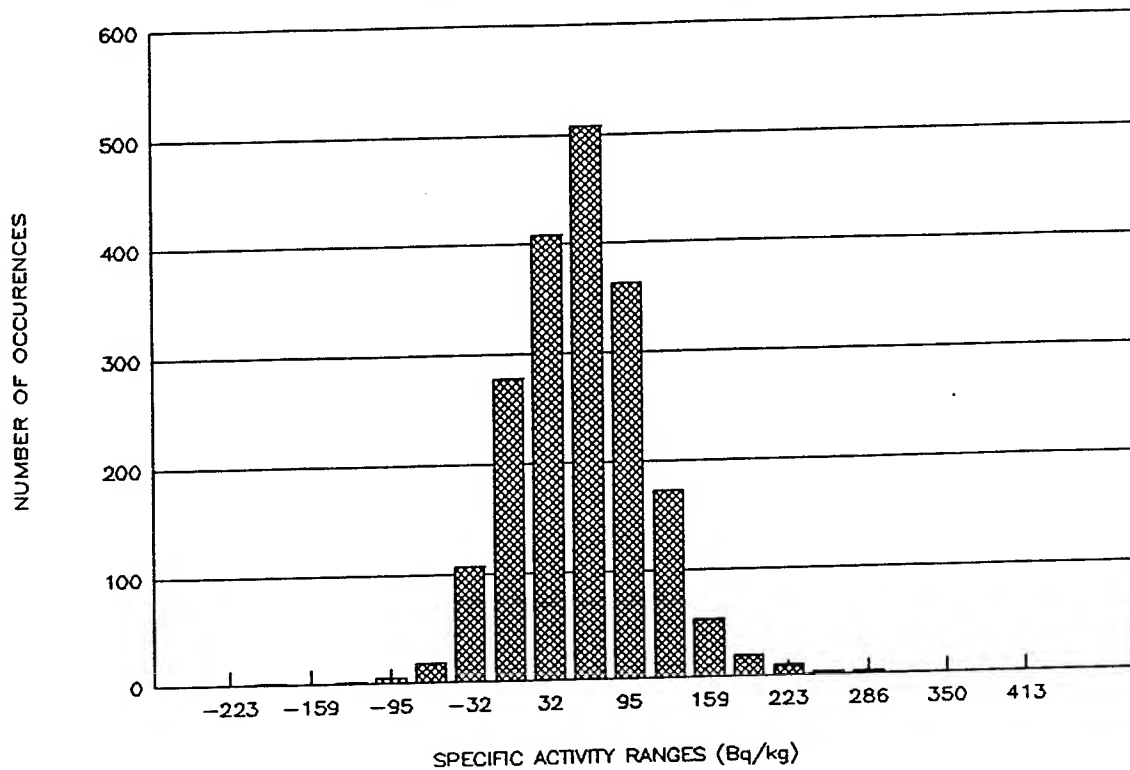
HOT PARTICLE EVENTS	536	SORTS BY ONE GATE ONLY	278
MULTIPARTICLE EVENTS	158	SORTS BY TWO GATES	262
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

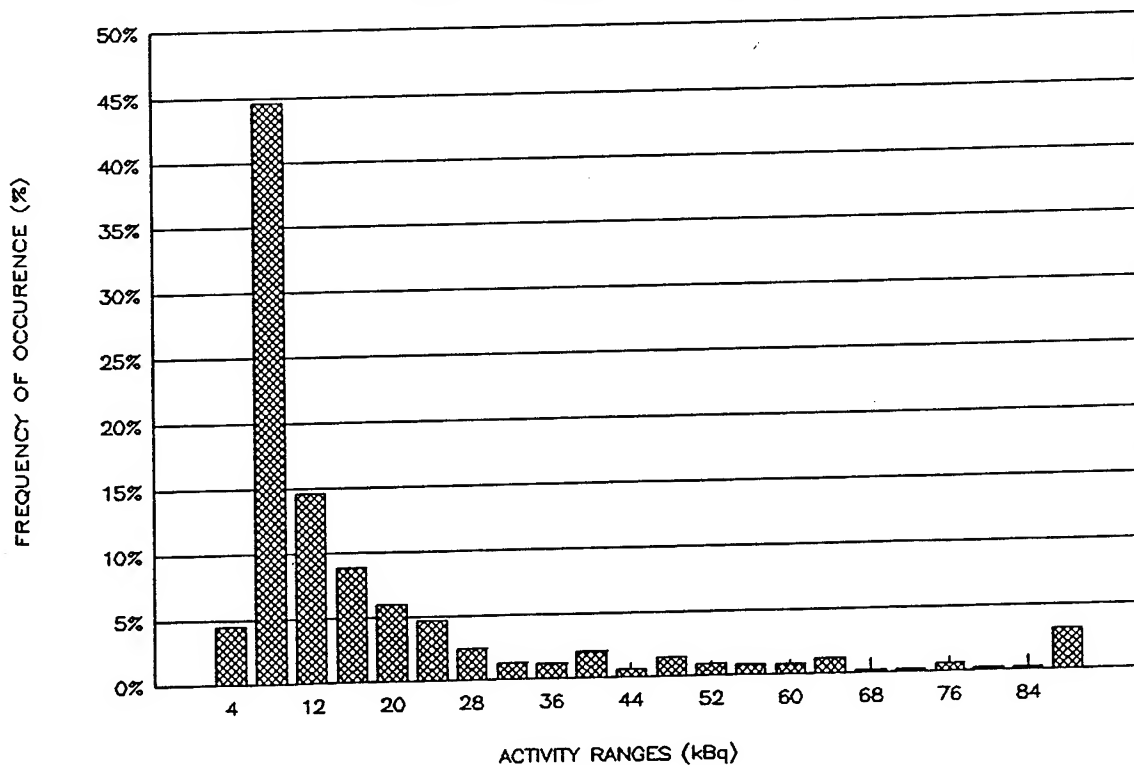
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 13-May-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 13-May-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 13-May-93

AVERAGE BACKGROUND COUNT RATE	0.79 ± 0.03 c/sec		
SORTER SOIL DENSITY	1.35 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		0.44 tons	121.6 tons
MAXIMUM/SORT		4.7 kg	62.9 kg
MINIMUM/SORT		0.8 kg	58.2 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			99.6%
EQUIVALENT SOIL-IN-GROUND	0.35 yd ³	96.4 yd ³	96.7 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	7,787 kBq		
MAXIMUM/SORT	718 kBq		
MINIMUM/SORT	3.1 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	2,628 kBq	4,441 kBq	
MINIMUM/SORT	450 kBq	18 kBq	
SPECIFIC ACTIVITY	0 Bq	-8 kBq	
	6,033 Bq/kg	37 Bq/kg	
WORK HISTORY			
WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:13 AM	END SOIL PROCESSING	04:59 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS	11.5 hr		
AVAILABLE HOURS	11.5 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	10.78 hr		
DOWN-TIME	0.72 hr		
TOTAL SYSTEM PAUSE	0.00 hr		
NONAVAILABLE HOURS	0.0 hr		
START-UP	0.22 hr		
SHUT-DOWN	0.51 hr		
PLANT PERFORMANCE	93.7%		
PRODUCTIVITY	93.7%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,352		
NONPROCESS RECORDS (Test, calibration, etc)	4		
20-SEC PROCESS RECORDS	1,940		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	1,642 AD=0 & MD=0 & MND>0		
SOME SORT	298 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	1	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	14:46:53	None
ACT_P <5 kBq	59 14.3%		

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 19,400
 2-SEC RECORDS WITH SORTS 412 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 92 86.0%
 3 DETECTORS 13 12.1%
 4 DETECTORS 1 0.9%
 5 DETECTORS 1 0.9%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 107
 NET 2-SEC RECORDS WITH SORTS 305
 2-SEC PERIODS WITH NO SORTS 19,095
 AVG TIME BETWEEN 2-SEC SORTS 127.2 sec

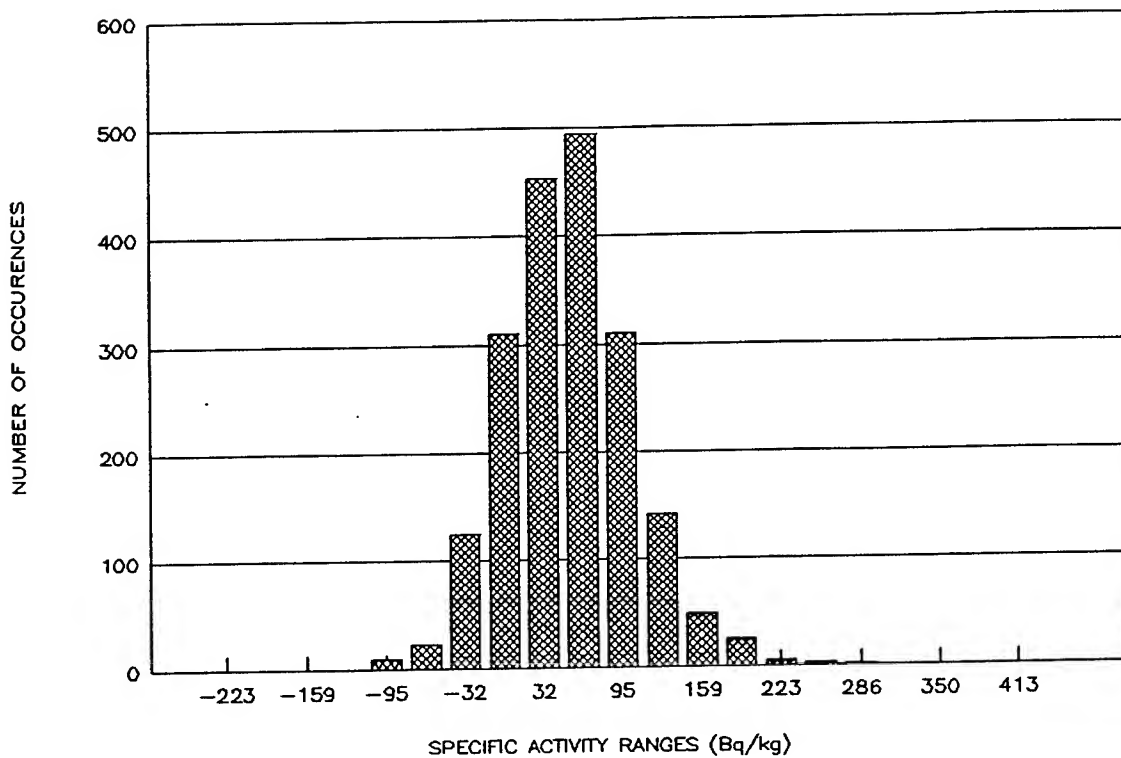
1-GATE SORTS		216	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%		ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	9	4.2%	-14000	0	-223	4000	12	2.9%	4
2	25	11.6%	-12000	0	-191	8000	198	48.1%	8
3	40	18.5%	-10000	0	-159	12000	75	18.2%	12
4	46	21.3%	-8000	0	-127	16000	29	7.0%	16
5	45	20.8%	-6000	9	-95	20000	19	4.6%	20
6	36	16.7%	-4000	22	-64	24000	14	3.4%	24
7	12	5.6%	-2000	124	-32	28000	9	2.2%	28
8	3	1.4%	0	310	0	32000	11	2.7%	32
TOTAL	216		2000	453	32	36000	1	0.2%	36
			4000	494	64	40000	1	0.2%	40
			6000	310	95	44000	5	1.2%	44
2-GATE SORTS		196	8000	142	127	48000	3	0.7%	48
DETECTR	SORTS	FREQ%				52000	4	1.0%	52
8			10000	48	159	56000	2	0.5%	56
9	12	6.1%	12000	24	191	60000	7	1.7%	60
10	28	14.3%	14000	5	223	64000	1	0.2%	64
11	45	23.0%	16000	2	254	68000	8	1.9%	68
12	49	25.0%	18000	1	286	72000	1	0.2%	72
13	35	17.9%	20000	0	318	76000	2	0.5%	76
14	23	11.7%	22000	0	350	80000	1	0.2%	80
15	4	2.0%	24000	0	382	84000	1	0.2%	84
TOTAL	196		26000	0	413	84000	1	0.2%	84
			>28000	0	0	>84000	8	1.9%	>84
			TOTAL	1944		TOTAL	412		
SUMMARY TOTALS									
HOT PARTICLE EVENTS			418	SORTS BY ONE GATE ONLY			216		
MULTIPARTICLE EVENTS			129	SORTS BY TWO GATES			196		
DISTRIBUTED EVENTS			0						

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

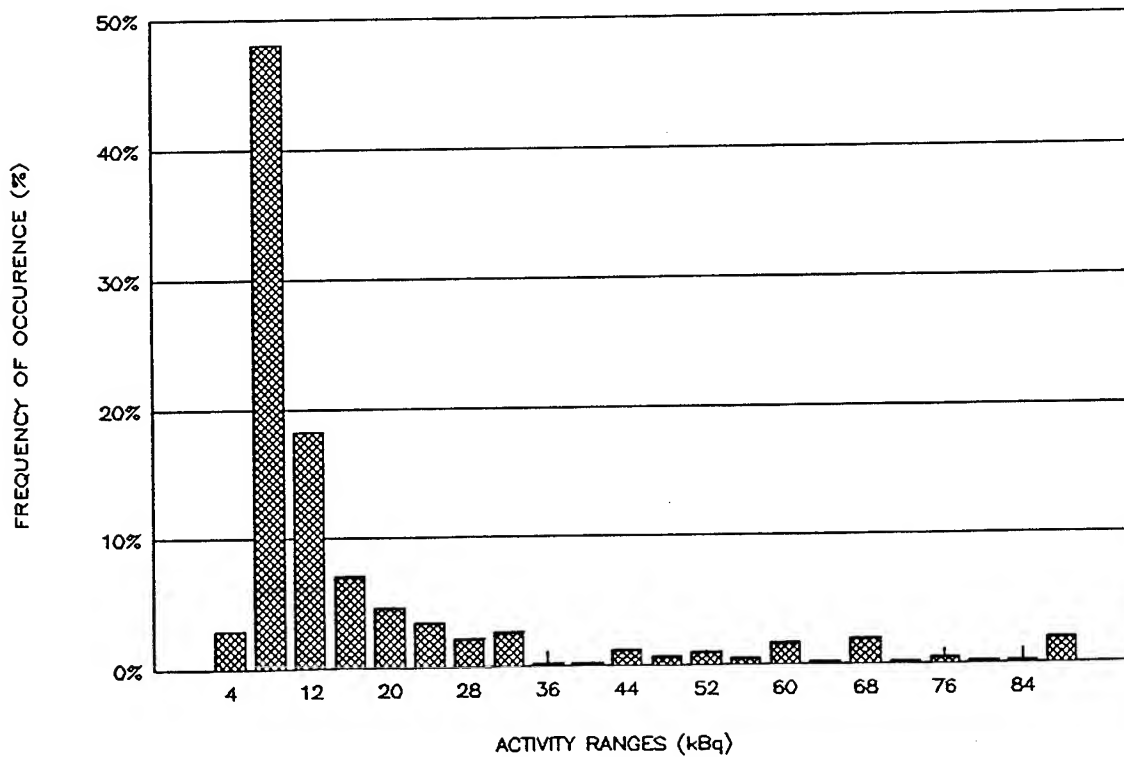
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 13-May-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 13-May-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 12-May-93

AVERAGE BACKGROUND COUNT RATE	0.81 ± 0.04 c/sec		
SORTER SOIL DENSITY	1.35 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	1.13 tons	119.6 tons	
MAXIMUM/SORT	62.9 kg	62.9 kg	
MINIMUM/SORT	0.8 kg	57.4 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.1%
EQUIVALENT SOIL-IN-GROUND	0.90 yd ³	94.8 yd ³	95.7 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	15,765 kBq		
MAXIMUM/SORT	692 kBq		
MINIMUM/SORT	2.5 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	5,363 kBq	5,667 kBq	
MINIMUM/SORT	401 kBq	14 kBq	
SPECIFIC ACTIVITY	0 Bq	-8 kBq	
	4,739 Bq/kg	47 Bq/kg	
WORK HISTORY			
WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:19 AM	END SOIL PROCESSING	04:58 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS	11.5 hr		
AVAILABLE HOURS	11.5 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	10.66 hr		
DOWN-TIME	0.84 hr		
TOTAL SYSTEM PAUSE	0.00 hr		
NONAVAILABLE HOURS	0.0 hr		
START-UP	0.32 hr		
SHUT-DOWN	0.53 hr		
PLANT PERFORMANCE	92.7%		
PRODUCTIVITY	92.7%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,912		
NONPROCESS RECORDS (Test, calibration, etc)	10		
20-SEC PROCESS RECORDS	1,919		
TOTAL SORT	1 MD>0 & MND=0		
NO SORT	1,269 AD=0 & MD=0 & MND>0		
SOME SORT	648 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	1		
0<AD<1kBq & MD>0		UNEXPLAIN	PAUSE
AD=0 & MD	1	TIME	TIME
AD<0 & MD	0	07:43:22	None
ACT_P <5 kBq	220 22.2%	07:55:42	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	19,190	08:44:42
2-SEC RECORDS WITH SORTS	993 (ACT_P >0 kBq)	08:55:22
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		11:47:02
2 DETECTORS	221 83.1%	15:24:02
3 DETECTORS	39 14.7%	16:00:02
4 DETECTORS	6 2.3%	
5 DETECTORS	0 0.0%	
6 DETECTORS	0 0.0%	
7 DETECTORS	0 0.0%	
8 DETECTORS	0 0.0%	
TOTAL	266	
NET 2-SEC RECORDS WITH SORTS	727	
2-SEC PERIODS WITH NO SORTS	18,463	
AVG TIME BETWEEN 2-SEC SORTS	52.8 sec	

1-GATE SORTS	511	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	6	1.2%	-14000	0	-223	4000	58	5.8%
2	33	6.5%	-12000	1	-191	8000	450	45.3%
3	54	10.6%	-10000	1	-159	12000	183	18.4%
4	99	19.4%	-8000	2	-127	16000	88	8.9%
5	117	22.9%	-6000	4	-95	20000	51	5.1%
6	75	14.7%	-4000	23	-64	24000	33	3.3%
7	97	19.0%	-2000	86	-32	28000	20	2.0%
8	30	5.9%	0	230	0	32000	18	1.8%
TOTAL	511		2000	430	32	36000	15	1.5%
			4000	483	64	40000	16	1.6%
2-GATE SORTS	482		6000	337	95	44000	13	1.3%
DETECTR	SORTS	FREQ%	8000	204	127	48000	3	0.3%
8			10000	84	159	52000	3	0.3%
9	20	4.1%	12000	29	191	56000	4	0.4%
10	45	9.3%	14000	13	223	60000	7	0.7%
11	62	12.9%	16000	2	254	64000	2	0.2%
12	113	23.4%	18000	0	286	68000	2	0.2%
13	92	19.1%	20000	0	318	72000	3	0.3%
14	89	18.5%	22000	0	350	76000	0	0.0%
15	61	12.7%	24000	0	382	80000	3	0.3%
TOTAL	482		26000	0	413	84000	4	0.4%
			>28000	0	0	>84000	17	1.7%
			TOTAL	1929		TOTAL	993	

SUMMARY TOTALS

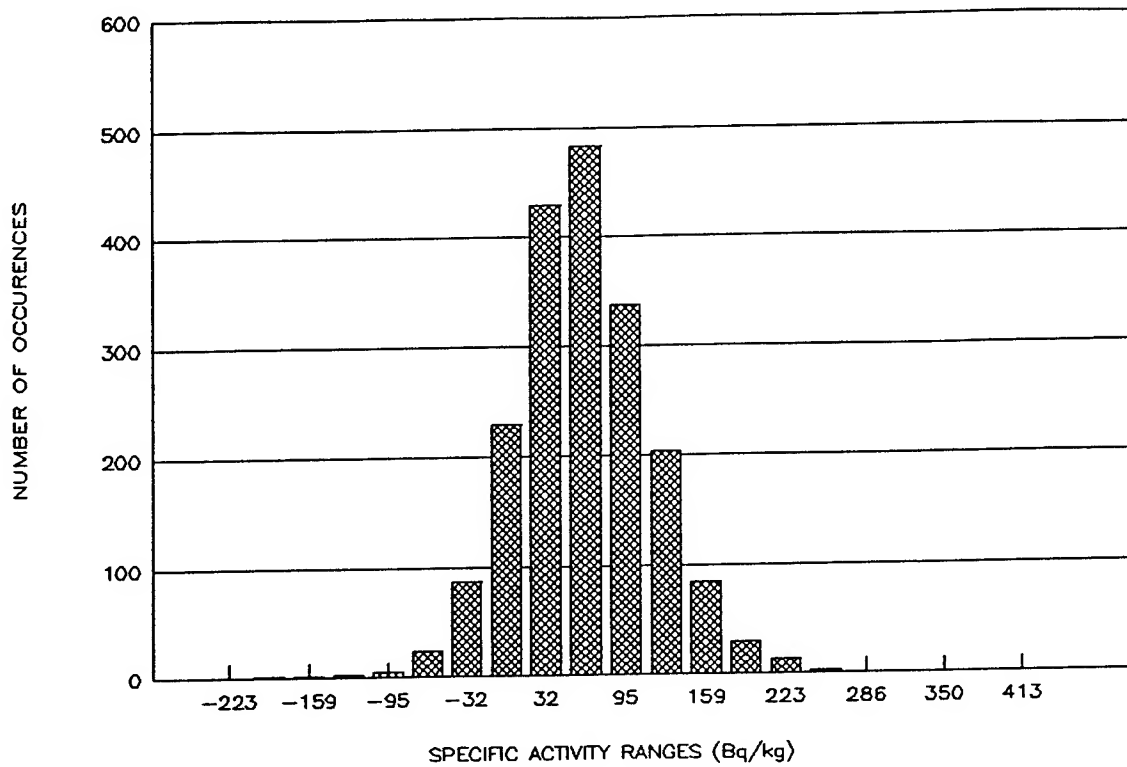
HOT PARTICLE EVENTS	1021	SORTS BY ONE GATE ONLY	511
MULTIPARTICLE EVENTS	337	SORTS BY TWO GATES	482
DISTRIBUTED EVENTS	66		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

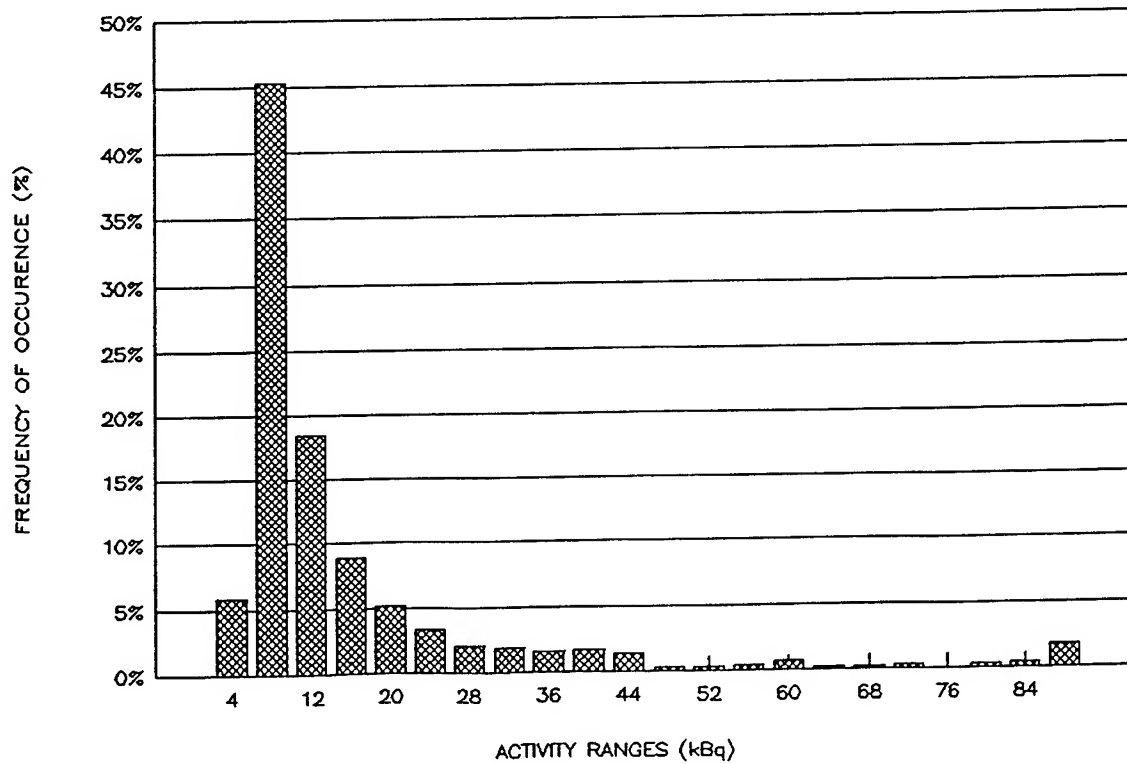
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 12-May-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 12-May-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 12-May-93

AVERAGE BACKGROUND COUNT RATE 0.86 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.35 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.91 tons	119.9 tons
MAXIMUM/SORT	6.3 kg	62.9 kg
MINIMUM/SORT	0.8 kg	56.6 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		99.2%
EQUIVALENT SOIL-IN-GROUND	0.72 yd ³	95.0 yd ³ 95.7 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	15,031 kBq
MAXIMUM/SORT	876 kBq
MINIMUM/SORT	3.0 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	5,045 kBq	4,741 kBq
MAXIMUM/SORT	537 kBq	14 kBq
MINIMUM/SORT	0 Bq	-7 kBq
SPECIFIC ACTIVITY	5,565 Bq/kg	40 Bq/kg

WORK HISTORY

WORK DAY START	06:00 AM
PLANT START-UP	06:00 AM
START SOIL PROCESSING	06:19 AM
LUNCH START	11:30 AM

WORK DAY END	05:30 PM
PLANT SHUT-DOWN	05:30 PM
END SOIL PROCESSING	04:59 PM
LUNCH PERIOD	0.0 hr

WORK HOURS	11.5 hr
AVAILABLE HOURS	11.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.67 hr
DOWN-TIME	0.83 hr
TOTAL SYSTEM PAUSE	0.00 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.32 hr
SHUT-DOWN	0.52 hr
PLANT PERFORMANCE	92.8%
PRODUCTIVITY	92.8%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 2,774
 NONPROCESS RECORDS (Test, calibration, etc) 9

20-SEC PROCESS RECORDS

TOTAL SORT	0 MD>0 & MND=0
NO SORT	1,355 AD=0 & MD=0 & MND>0
SOME SORT	565 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	0
AD=0 & MD	0
AD<0 & MD	0
ACT_P <5 kBq	148 17.3%

UNEXPLAIN	PAUSE
TIME	TIME
None	None

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS

19,200

2-SEC RECORDS WITH SORTS

854 (ACT_P >0 kBq)

2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	166	86.0%
3 DETECTORS	25	13.0%
4 DETECTORS	2	1.0%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%

TOTAL

193

NET 2-SEC RECORDS WITH SORTS

661

2-SEC PERIODS WITH NO SORTS

18,539

AVG TIME BETWEEN 2-SEC SORTS

58.1 sec

1-GATE SORTS		447	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	15	3.4%	-14000	2	-223	4000	38 4.4%	4
2	71	15.9%	-12000	0	-191	8000	412 48.2%	8
3	78	17.4%	-10000	0	-159	12000	158 18.5%	12
4	105	23.5%	-8000	2	-127	16000	67 7.8%	16
5	88	19.7%	-6000	6	-95	20000	35 4.1%	20
6	63	14.1%	-4000	31	-64	24000	25 2.9%	24
7	23	5.1%	-2000	107	-32	28000	19 2.2%	28
8	4	0.9%	0	294	0	32000	23 2.7%	32
TOTAL	447		2000	445	32	36000	6 0.7%	36
			4000	455	64	40000	7 0.8%	40
			6000	335	95	44000	10 1.2%	44
2-GATE SORTS		407	8000	163	127	48000	9 1.1%	48
DETECTR	SORTS	FREQ%	10000	67	159	52000	6 0.7%	52
8			12000	17	191	56000	2 0.2%	56
9	37	9.1%	14000	4	223	60000	4 0.5%	60
10	64	15.7%	16000	1	254	64000	0 0.0%	64
11	81	19.9%	18000	0	286	68000	2 0.2%	68
12	97	23.8%	20000	0	318	72000	2 0.2%	72
13	62	15.2%	22000	0	350	76000	4 0.5%	76
14	54	13.3%	24000	0	382	80000	3 0.4%	80
15	12	2.9%	26000	0	413	84000	1 0.1%	84
TOTAL	407		>28000	0	0	>84000	21 2.5%	>84
			TOTAL	1929		TOTAL	854	

SUMMARY TOTALS

HOT PARTICLE EVENTS	880
MULTIPARTICLE EVENTS	260
DISTRIBUTED EVENTS	0

SORTS BY ONE GATE ONLY
SORTS BY TWO GATES

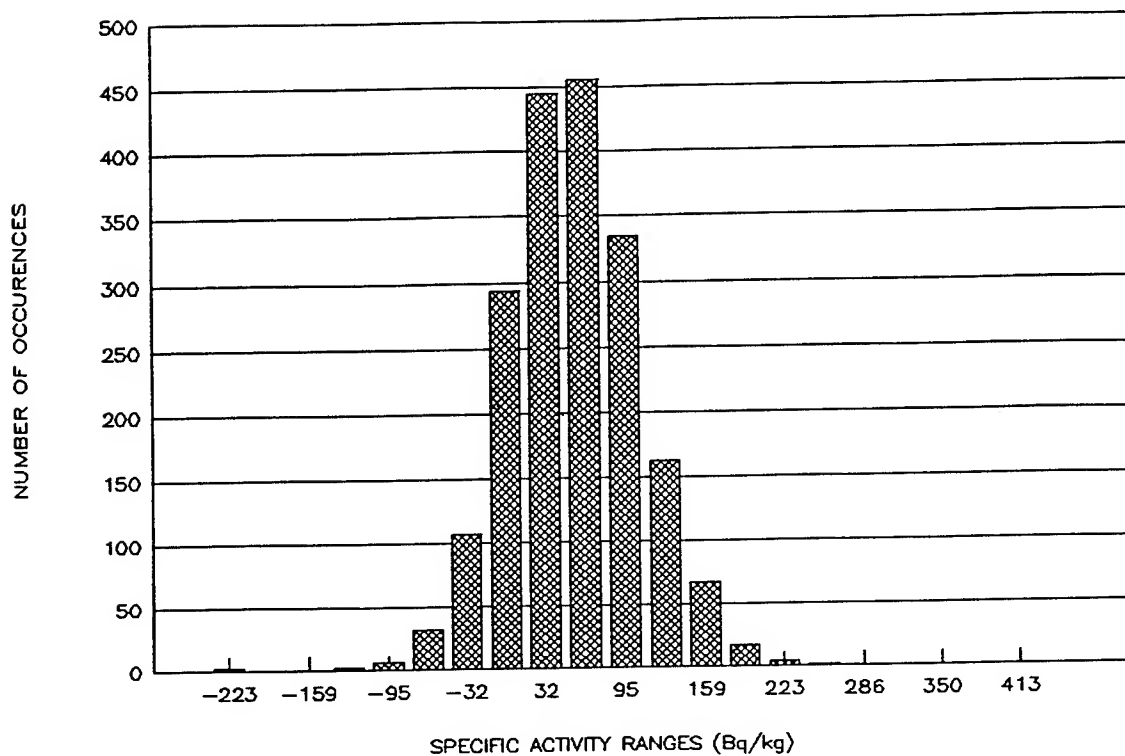
447
407

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

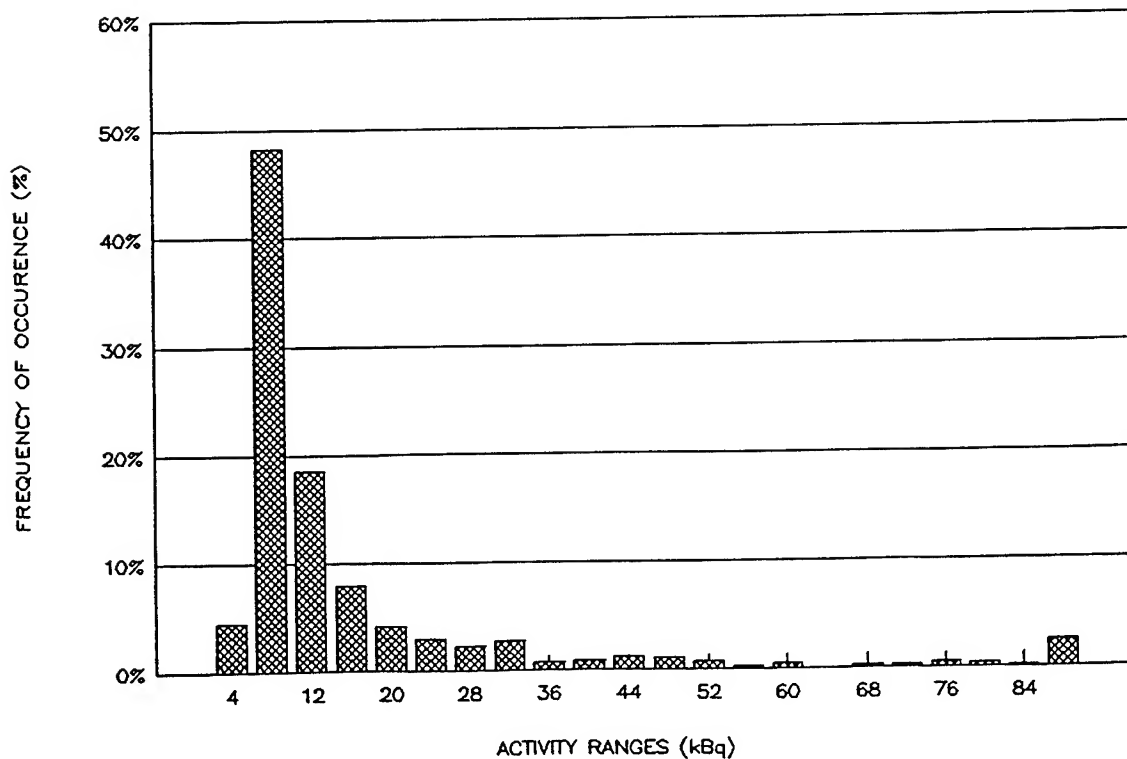
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 12-May-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 12-May-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 11-May-93

AVERAGE BACKGROUND COUNT RATE 0.80 ± 0.03 c/sec
 SORTER SOIL DENSITY 1.35 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN	
MASS TOTAL	1.70 tons	119.6 tons	
MAXIMUM/SORT	8.6 kg	62.9 kg	
MINIMUM/SORT	0.8 kg	54.2 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			98.6%
EQUIVALENT SOIL-IN-GROUND	1.35 yd ³	94.8 yd ³	96.2 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	24,577 kBq
MAXIMUM/SORT	449 kBq
MINIMUM/SORT	2.9 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

	8,212 kBq	9,705 kBq
MAXIMUM/SORT	229 kBq	21 kBq
MINIMUM/SORT	0 Bq	-5 kBq
SPECIFIC ACTIVITY	4,835 Bq/kg	81 Bq/kg

WORK HISTORY		WORK DAY END	05:30 PM
WORK DAY START	06:00 AM	PLANT SHUT-DOWN	05:30 PM
PLANT START-UP	06:00 AM	END SOIL PROCESSING	05:01 PM
START SOIL PROCESSING	06:18 AM	LUNCH PERIOD	0.0 hr
LUNCH START	11:30 AM		

WORK HOURS	11.5 hr
AVAILABLE HOURS	11.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.72 hr
DOWN-TIME	0.78 hr
TOTAL SYSTEM PAUSE	0.00 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.31 hr
SHUT-DOWN	0.48 hr
PLANT PERFORMANCE	93.2%
PRODUCTIVITY	93.2%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 3,531
 NONPROCESS RECORDS (Test, calibration, etc) 4

20-SEC PROCESS RECORDS

TOTAL SORT	1,929	0 MD>0 & MND=0
NO SORT	1,011	AD=0 & MD=0 & MND>0
SOME SORT	918	AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0	

0<AD<1kBq & MD>0	5	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	07:07:01	None
ACT_P <5 kBq	326	10:20:41	
	20.3%		

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	19,290	11:35:01
2-SEC RECORDS WITH SORTS	1,602 (ACT_P >0 kBq)	14:28:01
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		15:12:21
2 DETECTORS	291 82.7%	
3 DETECTORS	51 14.5%	
4 DETECTORS	9 2.6%	
5 DETECTORS	1 0.3%	
6 DETECTORS	0 0.0%	
7 DETECTORS	0 0.0%	
8 DETECTORS	0 0.0%	
TOTAL	352	
NET 2-SEC RECORDS WITH SORTS	1,250	
2-SEC PERIODS WITH NO SORTS	18,040	
AVG TIME BETWEEN 2-SEC SORTS	30.9 sec	

1-GATE SORTS	809	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%	ACT_P
DETECTR SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	18	2.2%	-14000	0	-223	4000	93 5.8%
2	50	6.2%	-12000	0	-191	8000	720 44.9%
3	97	12.0%	-10000	0	-159	12000	279 17.4%
4	143	17.7%	-8000	2	-127	16000	162 10.1%
5	181	22.4%	-6000	1	-95	20000	86 5.4%
6	134	16.6%	-4000	6	-64	24000	60 3.7%
7	143	17.7%	-2000	25	-32	28000	28 1.7%
8	43	5.3%	0	106	0	32000	19 1.2%
TOTAL	809		2000	250	32	36000	26 1.6%
			4000	388	64	40000	17 1.1%
2-GATE SORTS	793		6000	452	95	44000	9 0.6%
DETECTR SORTS	FREQ%		8000	354	127	48000	12 0.7%
8			10000	189	159	52000	14 0.9%
9	36	4.5%	12000	82	191	56000	11 0.7%
10	72	9.1%	14000	38	223	60000	14 0.9%
11	123	15.5%	16000	23	254	64000	5 0.3%
12	155	19.5%	18000	11	286	68000	5 0.3%
13	163	20.6%	20000	3	318	72000	3 0.2%
14	145	18.3%	22000	3	350	76000	3 0.2%
15	99	12.5%	24000	0	382	80000	3 0.2%
TOTAL	793		26000	0	413	84000	4 0.2%
			>28000	0	0	>84000	29 1.8%
			TOTAL	1933		TOTAL	1602

SUMMARY TOTALS

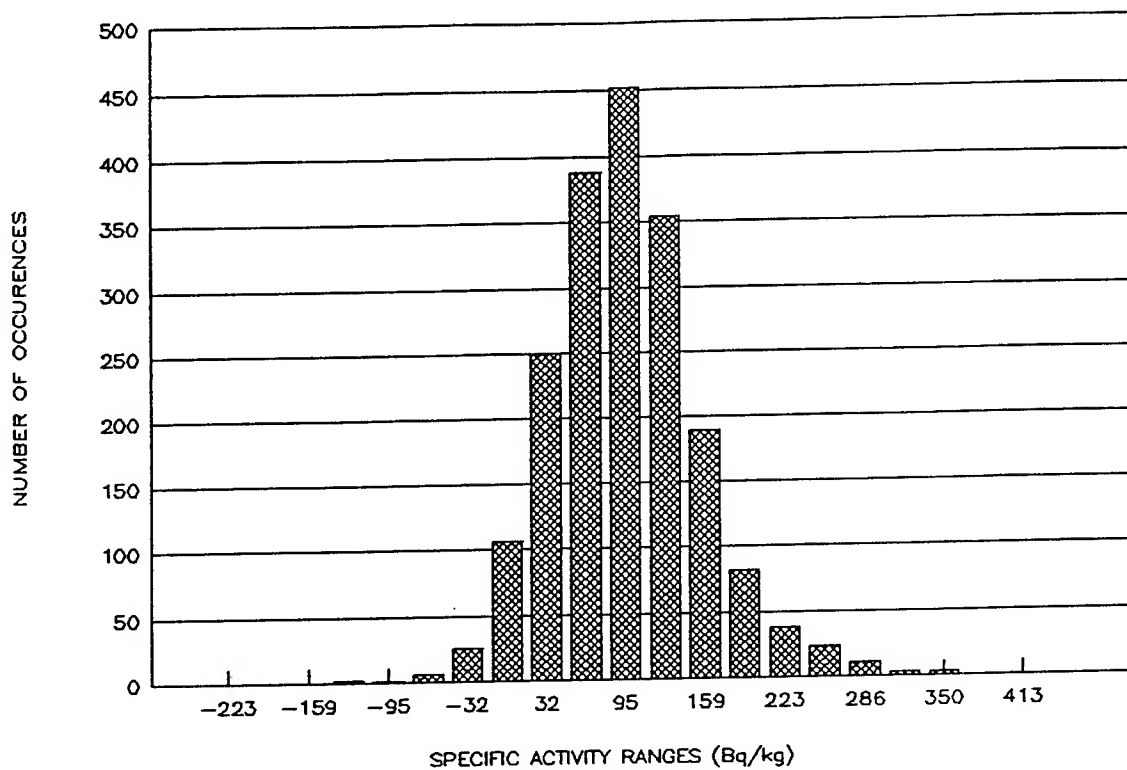
HOT PARTICLE EVENTS	1634	SORTS BY ONE GATE ONLY	809
MULTIPARTICLE EVENTS	509	SORTS BY TWO GATES	793
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
2.00 Empty belt
3.00 Test (No process soil)

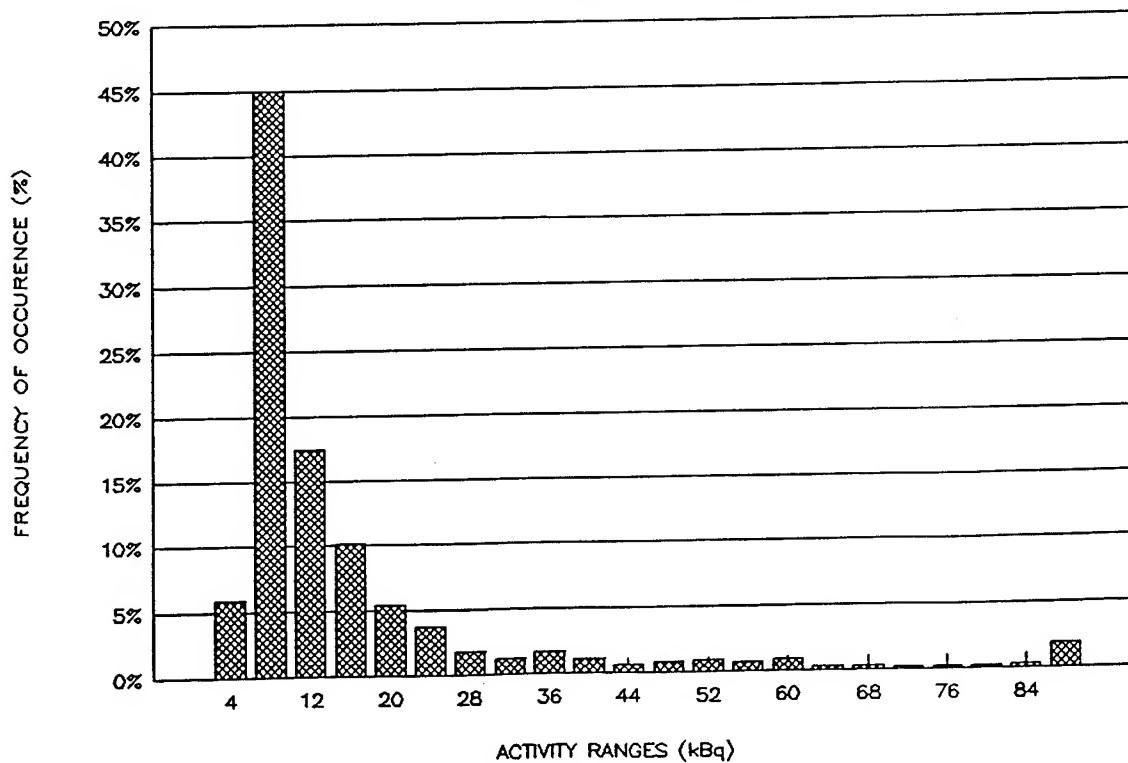
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 11-May-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 11-May-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 11-May-93

AVERAGE BACKGROUND COUNT RATE	0.88 ± 0.04 c/sec		
SORTER SOIL DENSITY	1.35 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	1.63 tons	119.5 tons	
MAXIMUM/SORT	7.1 kg	62.9 kg	
MINIMUM/SORT	0.8 kg	55.8 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			98.7%
EQUIVALENT SOIL-IN-GROUND	1.29 yd ³	94.7 yd ³	96.0 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	31,638 kBq		
MAXIMUM/SORT	1,560 kBq		
MINIMUM/SORT	2.7 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	10,439 kBq	8,474 kBq	
MAXIMUM/SORT	845 kBq	21 kBq	
MINIMUM/SORT	0 Bq	-8 kBq	
SPECIFIC ACTIVITY	6,424 Bq/kg	71 Bq/kg	
WORK HISTORY			
WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:18 AM	END SOIL PROCESSING	05:00 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS	11.5 hr		
AVAILABLE HOURS	11.5 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	10.70 hr		
DOWN-TIME	0.80 hr		
TOTAL SYSTEM PAUSE	0.00 hr		
NONAVAILABLE HOURS	0.0 hr		
START-UP	0.31 hr		
SHUT-DOWN	0.50 hr		
PLANT PERFORMANCE	93.0%		
PRODUCTIVITY	93.0%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	3,454		
NONPROCESS RECORDS (Test, calibration, etc)	7		
20-SEC PROCESS RECORDS	1,926		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	1,043 AD=0 & MD=0 & MND>0		
SOME SORT	883 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	2	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	10:55:41	None
ACT_P <5 kBq	240 15.7%	11:15:21	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 19,260
 2-SEC RECORDS WITH SORTS 1,528 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 300 85.0%
 3 DETECTORS 48 13.6%
 4 DETECTORS 5 1.4%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 353
 NET 2-SEC RECORDS WITH SORTS 1,175
 2-SEC PERIODS WITH NO SORTS 18,085
 AVG TIME BETWEEN 2-SEC SORTS 32.8 sec

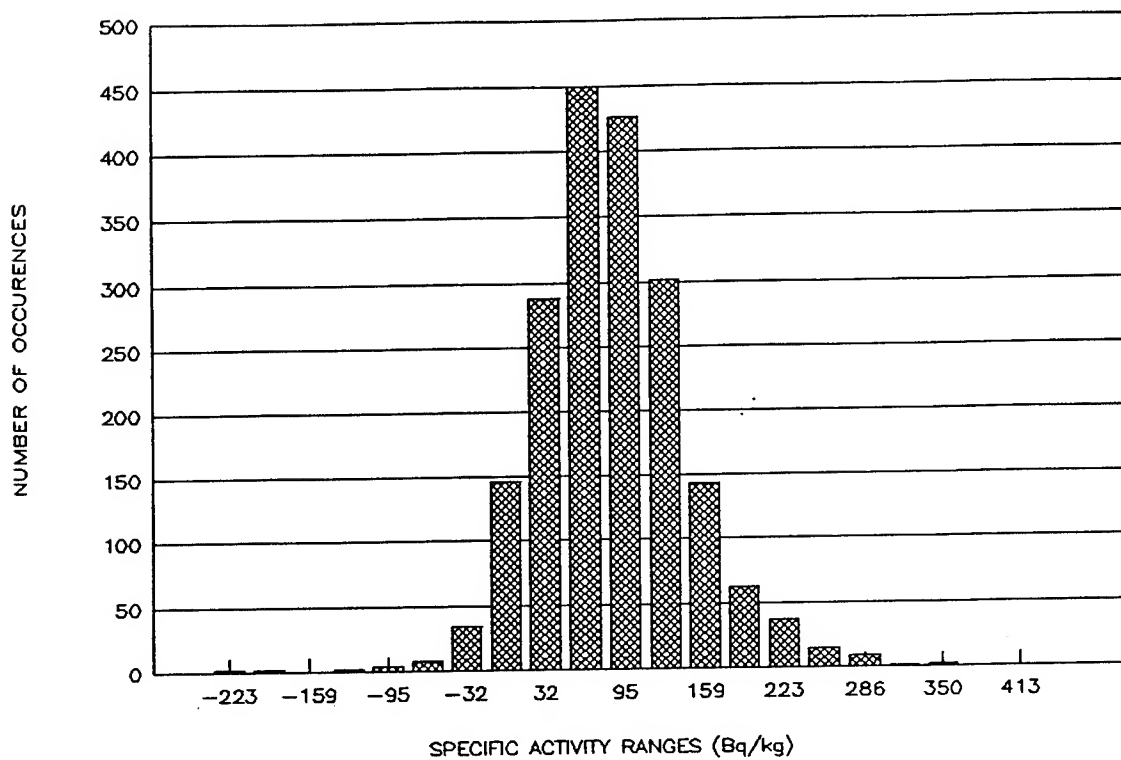
1-GATE SORTS DETECTR	SORTS	794 FREQ%	ACT_ND (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT FREQ% (#)	ACT_P (kBq)
1	43	5.4%	-14000	2	-223	4000	54 3.5%	4
2	114	14.4%	-12000	2	-191	8000	728 47.6%	8
3	138	17.4%	-10000	0	-159	12000	271 17.7%	12
4	137	17.3%	-8000	2	-127	16000	136 8.9%	16
5	157	19.8%	-6000	4	-95	20000	73 4.8%	20
6	126	15.9%	-4000	8	-64	24000	45 2.9%	24
7	65	8.2%	-2000	34	-32	28000	34 2.2%	28
8	14	1.8%	0	146	0	32000	26 1.7%	32
TOTAL	794		2000	288	32	36000	15 1.0%	36
			4000	450	64	40000	12 0.8%	40
			6000	426	95	44000	17 1.1%	44
2-GATE SORTS		734	8000	302	127	48000	9 0.6%	48
DETECTR	SORTS	FREQ%	10000	143	159	52000	10 0.7%	52
8			12000	62	191	56000	1 0.1%	56
9	88	12.0%	14000	37	223	60000	8 0.5%	60
10	92	12.5%	16000	15	254	64000	5 0.3%	64
11	147	20.0%	18000	9	286	68000	6 0.4%	68
12	145	19.8%	20000	1	318	72000	8 0.5%	72
13	137	18.7%	22000	2	350	76000	6 0.4%	76
14	80	10.9%	24000	0	382	80000	6 0.4%	80
15	45	6.1%	26000	0	413	84000	4 0.3%	84
TOTAL	734		26000	0	413	84000	4 0.3%	84
			>28000	0	0	>84000	54 3.5%	>84
			TOTAL	1933		TOTAL	1528	
SUMMARY TOTALS								
HOT PARTICLE EVENTS		1556			SORTS BY ONE GATE ONLY	794		
MULTIPARTICLE EVENTS		494			SORTS BY TWO GATES	734		
DISTRIBUTED EVENTS		0						

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

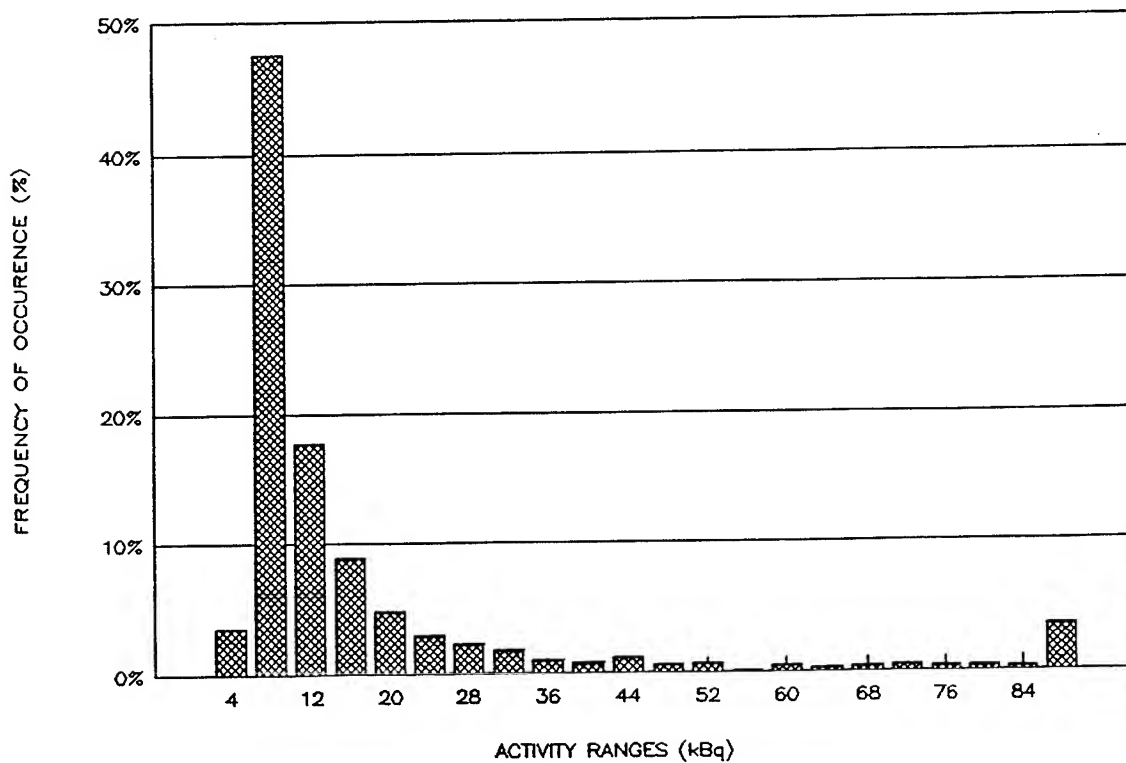
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 11-May-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 11-May-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 10-May-93

AVERAGE BACKGROUND COUNT RATE	0.80	±	0.02 c/sec		
SORTER SOIL DENSITY	1.35	tons/m ³			
GROUND SOIL DENSITY	1.65	tons/m ³			
			CONTAMINATED	CLEAN	
MASS TOTAL			1.55 tons	119.6 tons	
MAXIMUM/SORT			10.2 kg	62.9 kg	
MINIMUM/SORT			0.8 kg	52.7 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY					98.7%
EQUIVALENT SOIL-IN-GROUND			1.23 yd ³	94.8 yd ³	96.0 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)					
TOTAL			27,150 kBq		
MAXIMUM/SORT			800 kBq		
MINIMUM/SORT			3.1 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY					
MAXIMUM/SORT			8,850 kBq	9,446 kBq	
MINIMUM/SORT			512 kBq	22 kBq	
SPECIFIC ACTIVITY			0 Bq	-11 kBq	
			5,707 Bq/kg	79 Bq/kg	
WORK HISTORY					
WORK DAY START	06:00 AM		WORK DAY END	05:30 PM	
PLANT START-UP	06:00 AM		PLANT SHUT-DOWN	05:30 PM	
START SOIL PROCESSING	06:16 AM		END SOIL PROCESSING	04:58 PM	
LUNCH START	11:30 AM		LUNCH PERIOD	0.0 hr	
WORK HOURS			11.5 hr		
AVAILABLE HOURS			11.5 hr		
ACTUAL PROCESS HOURS (total 20-sec records)			10.70 hr		
DOWN-TIME			0.80 hr		
TOTAL SYSTEM PAUSE			0.00 hr		
NONAVAILABLE HOURS			0.0 hr		
START-UP			0.27 hr		
SHUT-DOWN			0.53 hr		
PLANT PERFORMANCE			93.0%		
PRODUCTIVITY			93.0%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)			3,391		
NONPROCESS RECORDS (Test, calibration, etc)			3		
20-SEC PROCESS RECORDS			1,926		
TOTAL SORT			0 MD>0 & MND=0		
NO SORT			1,068 AD=0 & MD=0 & MND>0		
SOME SORT			858 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS			0		
0<AD<1kBq & MD>0	1			UNEXPLAIN	PAUSE
AD=0 & MD	0			TIME	TIME
AD<0 & MD	0			14:51:29	None
ACT_P <5 kBq	300	20.5%			

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 19,260
 2-SEC RECORDS WITH SORTS 1,465 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 305 79.6%
 3 DETECTORS 62 16.2%
 4 DETECTORS 13 3.4%
 5 DETECTORS 3 0.8%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 383
 NET 2-SEC RECORDS WITH SORTS 1,082
 2-SEC PERIODS WITH NO SORTS 18,178
 AVG TIME BETWEEN 2-SEC SORTS 35.6 sec

1-GATE SORTS		749	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%		ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	20	2.7%	-14000	0	-223	4000	75	5.1%	4
2	60	8.0%	-12000	0	-191	8000	651	44.4%	8
3	81	10.8%	-10000	1	-159	12000	261	17.8%	12
4	123	16.4%	-8000	4	-127	16000	122	8.3%	16
5	150	20.0%	-6000	2	-95	20000	83	5.7%	20
6	138	18.4%	-4000	11	-64	24000	46	3.1%	24
7	138	18.4%	-2000	35	-32	28000	33	2.3%	28
8	39	5.2%	0	140	0	32000	24	1.6%	32
TOTAL	749		2000	265	32	36000	22	1.5%	36
			4000	362	64	40000	8	0.5%	40
			6000	401	95	44000	18	1.2%	44
2-GATE SORTS		716	8000	313	127	48000	16	1.1%	48
DETECTR	SORTS	FREQ%	10000	206	159	52000	12	0.8%	52
8			12000	101	191	56000	4	0.3%	56
9	39	5.4%	14000	53	223	60000	6	0.4%	60
10	73	10.2%	16000	22	254	64000	5	0.3%	64
11	106	14.8%	18000	8	286	68000	5	0.3%	68
12	129	18.0%	20000	3	318	72000	8	0.5%	72
13	149	20.8%	22000	2	350	76000	6	0.4%	76
14	133	18.6%	24000	0	382	80000	5	0.3%	80
15	87	12.2%	26000	0	413	84000	5	0.3%	84
TOTAL	716		>28000	0	0	>84000	50	3.4%	>84
			TOTAL	1929		TOTAL	1465		

SUMMARY TOTALS

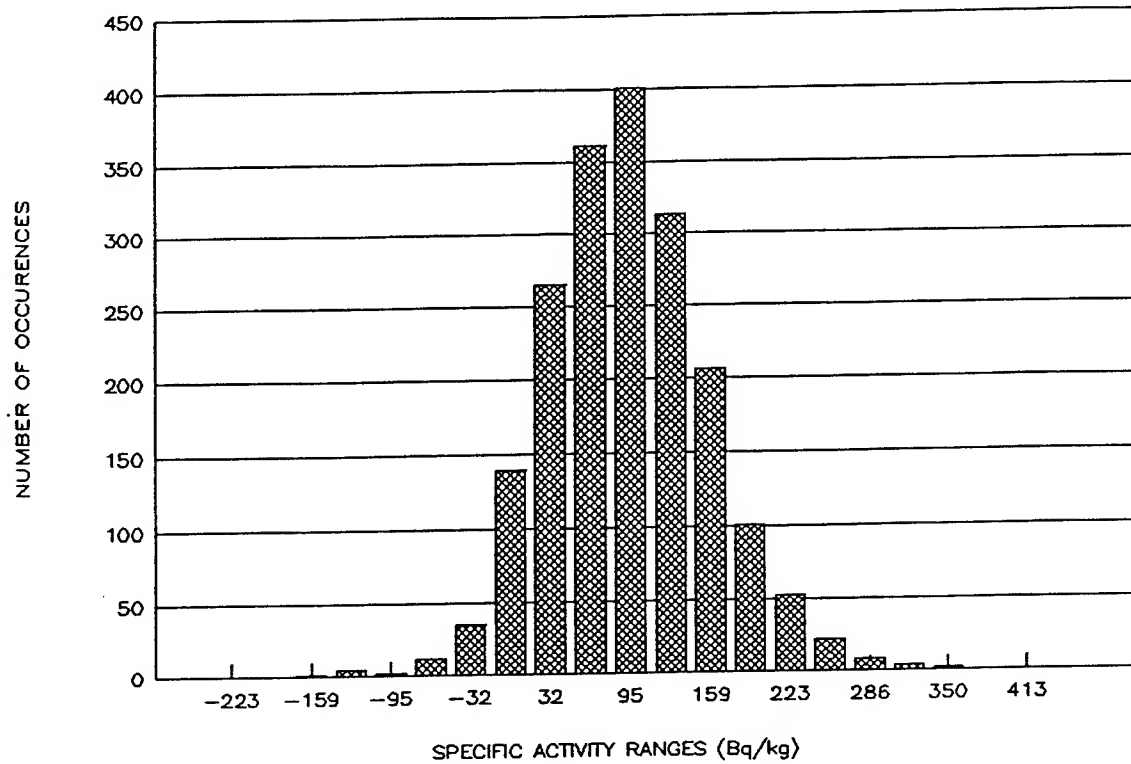
HOT PARTICLE EVENTS	1484	SORTS BY ONE GATE ONLY	749
MULTIPARTICLE EVENTS	471	SORTS BY TWO GATES	716
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

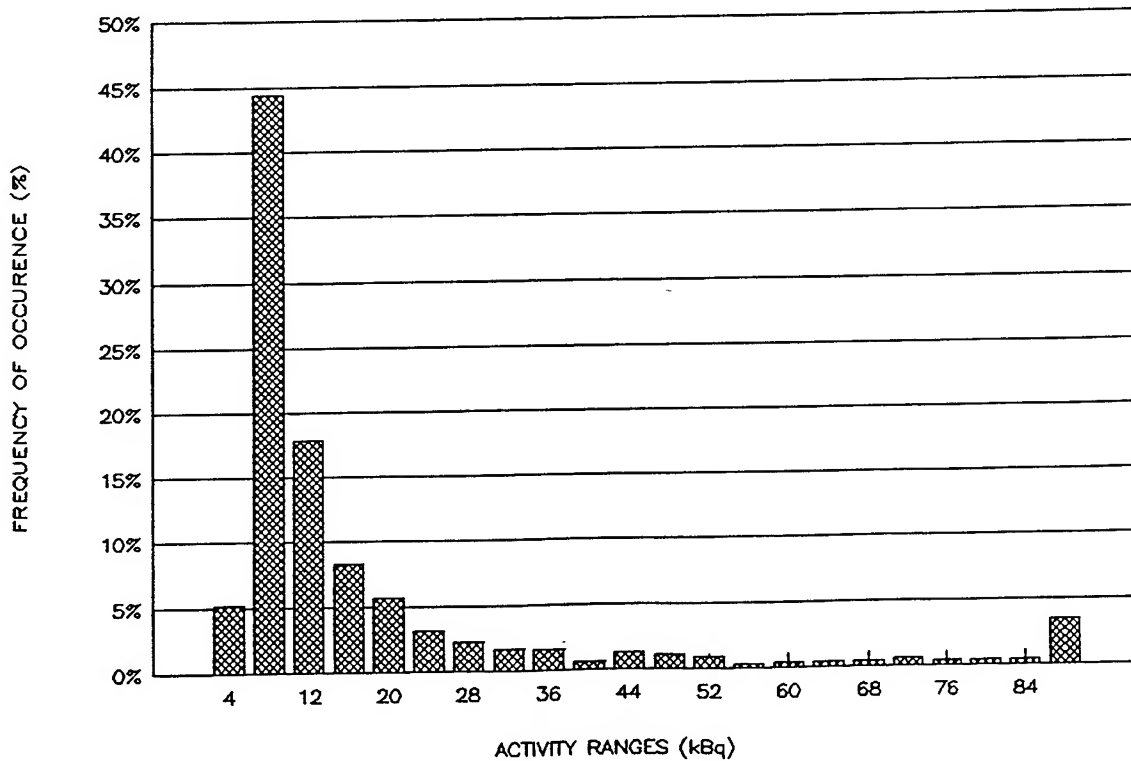
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 10-May-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 10-May-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 10-May-93

AVERAGE BACKGROUND COUNT RATE 0.87 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.35 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	1.69 tons	118.4 tons
MAXIMUM/SORT	7.9 kg	62.9 kg
MINIMUM/SORT	0.8 kg	55 kg

		98.6%
WEIGHT RECOVERY OR VOLUME RECOVERY		
EQUIVALENT SOIL-IN-GROUND	1.34 yd³	93.8 yd³ 95.2 yd³/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	29,040 kBq
MAXIMUM/SORT	1,937 kBq
MINIMUM/SORT	2.6 kBq

	9,640 kBq	8,708 kBq
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY		
MAXIMUM/SORT	1049 kBq	20 kBq
MINIMUM/SORT	0 Bq	-7 kBq
SPECIFIC ACTIVITY	5,703 Bq/kg	74 Bq/kg

WORK HISTORY

WORK DAY START	06:00 AM
PLANT START-UP	06:00 AM
START SOIL PROCESSING	06:19 AM
LUNCH START	11:30 AM

WORK DAY END	05:30 PM
PLANT SHUT-DOWN	05:30 PM
END SOIL PROCESSING	04:55 PM
LUNCH PERIOD	0.0 hr

WORK HOURS	11.5 hr
AVAILABLE HOURS	11.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.61 hr
DOWN-TIME	0.89 hr
TOTAL SYSTEM PAUSE	0.00 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.33 hr
SHUT-DOWN	0.57 hr
PLANT PERFORMANCE	92.2%
PRODUCTIVITY	92.2%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	3,501
NONPROCESS RECORDS (Test, calibration, etc)	14

20-SEC PROCESS RECORDS	1,909		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	1,004 AD=0 & MD=0 & MND>0		
SOME SORT	905 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	4	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	06:59:50	None
ACT_P <5 kBq	251 15.8%	08:27:30	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	19,090	14:26:50
2-SEC RECORDS WITH SORTS	1,592 (ACT_P >0 kBq)	14:36:30
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		
2 DETECTORS	334	83.7%
3 DETECTORS	59	14.8%
4 DETECTORS	5	1.3%
5 DETECTORS	1	0.3%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	399	
NET 2-SEC RECORDS WITH SORTS	1,193	
2-SEC PERIODS WITH NO SORTS	17,897	
AVG TIME BETWEEN 2-SEC SORTS	32.0 sec	

1-GATE SORTS DETECTR	SORTS	821 FREQ%	ACT_ND (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT FREQ%	ACT_P (kBq)
1	46	5.6%	-14000	3	-223	4000	56 3.5%	4
2	121	14.7%	-12000	0	-191	8000	748 47.0%	8
3	134	16.3%	-10000	4	-159	12000	287 18.0%	12
4	149	18.1%	-8000	3	-127	16000	127 8.0%	16
5	168	20.5%	-6000	4	-95	20000	89 5.6%	20
6	112	13.6%	-4000	15	-64	24000	47 3.0%	24
7	75	9.1%	-2000	53	-32	28000	36 2.3%	28
8	16	1.9%	0	163	0	32000	46 2.9%	32
TOTAL	821		2000	271	32	36000	22 1.4%	36
			4000	370	64	40000	14 0.9%	40
			6000	391	95	44000	12 0.8%	44
2-GATE SORTS		771	8000	285	127	48000	16 1.0%	48
DETECTR	SORTS	FREQ%	10000	186	159	52000	11 0.7%	52
8			12000	108	191	56000	4 0.3%	56
9	71	9.2%	14000	43	223	60000	11 0.7%	60
10	110	14.3%	16000	14	254	64000	5 0.3%	64
11	142	18.4%	18000	8	286	68000	6 0.4%	68
12	169	21.9%	20000	2	318	72000	4 0.3%	72
13	143	18.5%	22000	0	350	76000	8 0.5%	76
14	105	13.6%	24000	0	382	80000	2 0.1%	80
15	31	4.0%	26000	0	413	84000	6 0.4%	84
TOTAL	771		26000	0	413	84000	6 0.4%	84
			>28000	0	0	>84000	35 2.2%	>84
			TOTAL	1923		TOTAL	1592	

SUMMARY TOTALS

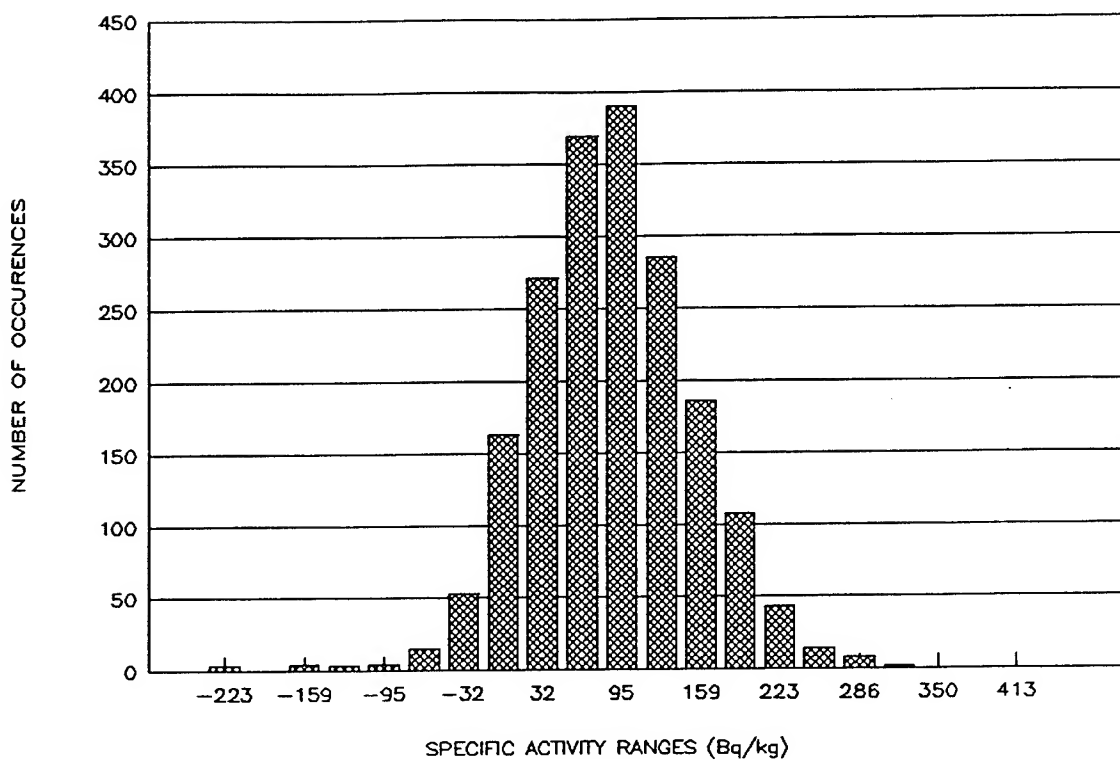
HOT PARTICLE EVENTS	1620	SORTS BY ONE GATE ONLY	821
MULTIPARTICLE EVENTS	512	SORTS BY TWO GATES	771
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
2.00 Empty belt
3.00 Test (No process soil)

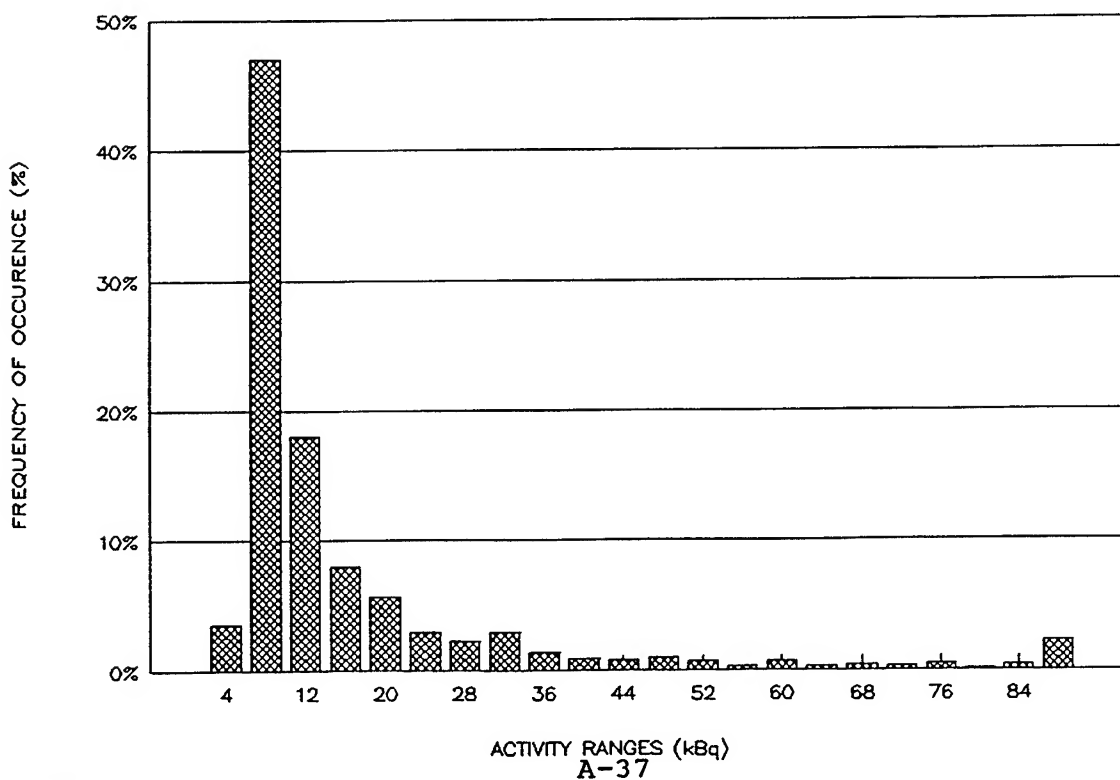
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 10-May-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 10-May-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 08-May-93

AVERAGE BACKGROUND COUNT RATE	0.79 ± 0.04 c/sec		
SORTER SOIL DENSITY	1.35 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	0.42 tons	36.3 tons	
MAXIMUM/SORT	7.1 kg	62.9 kg	
MINIMUM/SORT	0.8 kg	55.8 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			98.8%
EQUIVALENT SOIL-IN-GROUND	0.34 yd ³	28.8 yd ³	29.1 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	6,409 kBq		
MAXIMUM/SORT	288 kBq		
MINIMUM/SORT	3.1 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	2,112 kBq	2,699 kBq	
MINIMUM/SORT	153 kBq	17 kBq	
SPECIFIC ACTIVITY	0 Bq	-8 kBq	
	4,973 Bq/kg	74 Bq/kg	
WORK HISTORY			
WORK DAY START	06:00 AM	WORK DAY END	10:09 AM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	10:09 AM
START SOIL PROCESSING	06:32 AM	END SOIL PROCESSING	09:49 AM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS	4.2 hr		
AVAILABLE HOURS	4.2 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	3.24 hr		
DOWN-TIME	0.91 hr		
TOTAL SYSTEM PAUSE	0.00 hr		
NONAVAILABLE HOURS	0.0 hr		
START-UP	0.55 hr		
SHUT-DOWN	0.32 hr		
PLANT PERFORMANCE	78.2%		
PRODUCTIVITY	78.2%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	984		
NONPROCESS RECORDS (Test, calibration, etc)	13		
20-SEC PROCESS RECORDS	584		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	339 AD=0 & MD=0 & MND>0		
SOME SORT	245 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	1	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	09:43:44	None
ACT_P <5 kBq	74 18.5%		

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 5,840
 2-SEC RECORDS WITH SORTS 400 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 84 86.6%
 3 DETECTORS 11 11.3%
 4 DETECTORS 2 2.1%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 97
 NET 2-SEC RECORDS WITH SORTS 303
 2-SEC PERIODS WITH NO SORTS 5,537
 AVG TIME BETWEEN 2-SEC SORTS 38.5 sec

1-GATE SORTS DETECTR	SORTS	194 FREQ%	ACT_ND (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT FREQ% (#)	ACT_P (kBq)
1	2	1.0%	-14000	3	-223	4000	18 4.5%	4
2	12	6.2%	-12000	2	-191	8000	192 48.0%	8
3	28	14.4%	-10000	1	-159	12000	62 15.5%	12
4	35	18.0%	-8000	1	-127	16000	35 8.8%	16
5	45	23.2%	-6000	3	-95	20000	20 5.0%	20
6	34	17.5%	-4000	5	-64	24000	17 4.3%	24
7	31	16.0%	-2000	13	-32	28000	13 3.3%	28
8	7	3.6%	0	35	0	32000	8 2.0%	32
TOTAL	194		2000	96	32	36000	5 1.3%	36
			4000	138	64	40000	3 0.8%	40
2-GATE SORTS		206	6000	108	95	44000	3 0.8%	44
DETECTR	SORTS	FREQ%	8000	84	127	48000	6 1.5%	48
8			10000	52	159	52000	3 0.8%	52
9	8	3.9%	12000	32	191	56000	0 0.0%	56
10	16	7.8%	14000	12	223	60000	1 0.3%	60
11	38	18.4%	16000	10	254	64000	0 0.0%	64
12	40	19.4%	18000	2	286	68000	1 0.3%	68
13	43	20.9%	20000	0	318	72000	2 0.5%	72
14	42	20.4%	22000	0	350	76000	0 0.0%	76
15	19	9.2%	24000	0	382	80000	1 0.3%	80
TOTAL	206		26000	0	413	84000	0 0.0%	84
			>28000	0	0	>84000	10 2.5%	>84
			TOTAL	597		TOTAL	400	

SUMMARY TOTALS

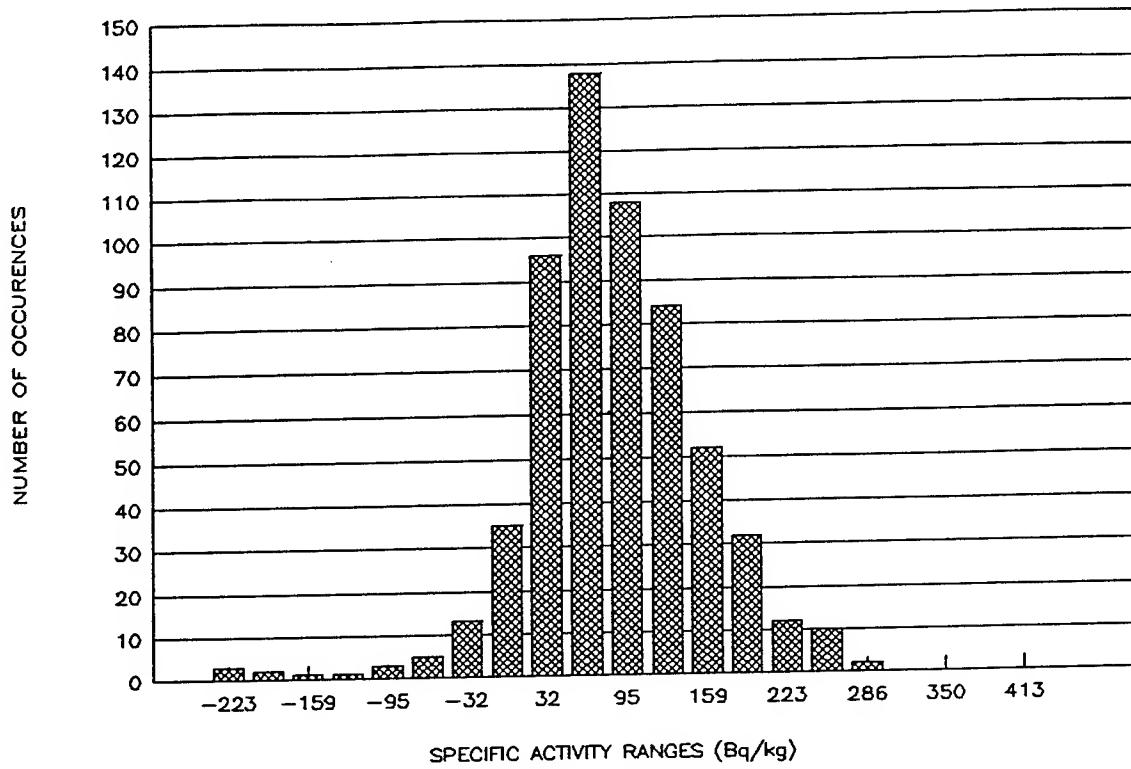
HOT PARTICLE EVENTS	415	SORTS BY ONE GATE ONLY	194
MULTIPARTICLE EVENTS	120	SORTS BY TWO GATES	206
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

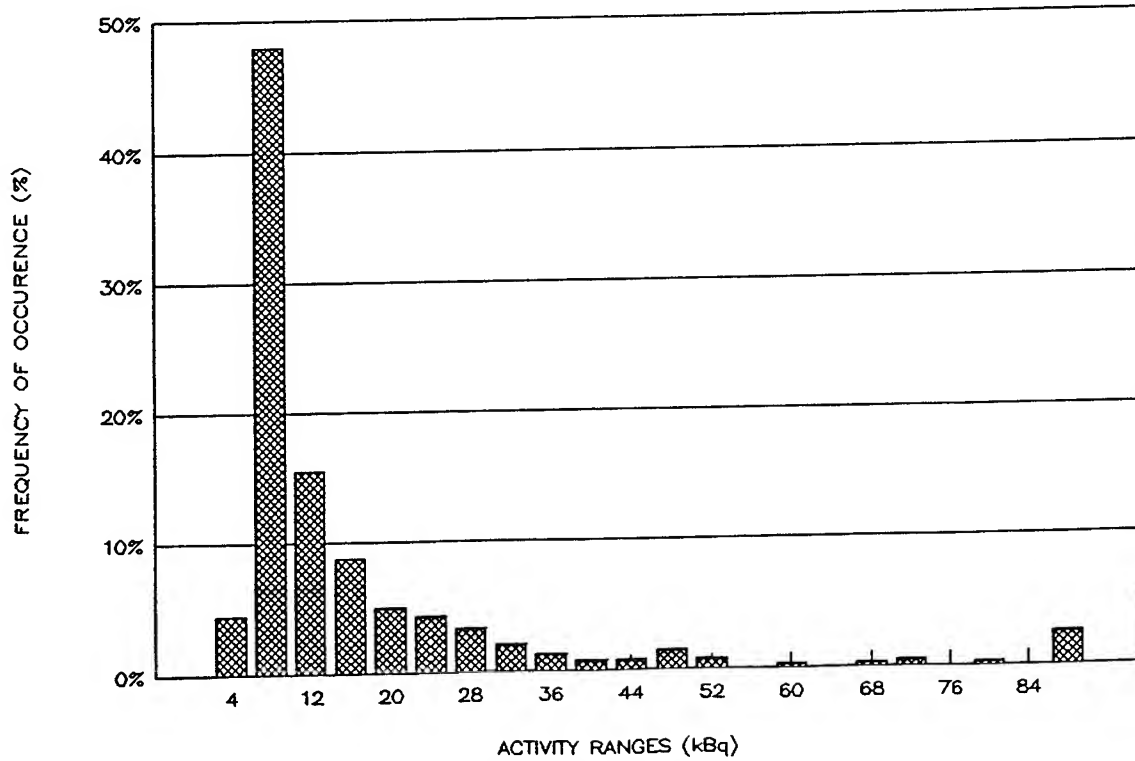
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 08-May-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 08-May-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 08-May-93

AVERAGE BACKGROUND COUNT RATE 0.83 ± 0.06 c/sec
 SORTER SOIL DENSITY 1.35 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN	
MASS TOTAL	0.36 tons	36.4 tons	
MAXIMUM/SORT	4.7 kg	62.9 kg	
MINIMUM/SORT	0.8 kg	58.2 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.0%
EQUIVALENT SOIL-IN-GROUND	0.28 yd ³	28.8 yd ³	29.1 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	4,291 kBq
MAXIMUM/SORT	215 kBq
MINIMUM/SORT	3.0 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

	1,548 kBq	2,734 kBq
MAXIMUM/SORT	123 kBq	20 kBq
MINIMUM/SORT	0 Bq	-6 kBq
SPECIFIC ACTIVITY	4,314 Bq/kg	75 Bq/kg

WORK HISTORY

WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	10:09 AM
START SOIL PROCESSING	06:32 AM	END SOIL PROCESSING	09:50 AM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr

WORK HOURS	11.0 hr
AVAILABLE HOURS	4.2 hr
ACTUAL PROCESS HOURS (total 20-sec records)	3.24 hr
DOWN-TIME	0.91 hr
TOTAL SYSTEM PAUSE	0.00 hr
NONAVAILABLE HOURS	6.9 hr
START-UP	0.55 hr
SHUT-DOWN	0.31 hr
PLANT PERFORMANCE	78.2%
PRODUCTIVITY	29.5%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 915

NONPROCESS RECORDS (Test, calibration, etc) 13

20-SEC PROCESS RECORDS

TOTAL SORT	0 MD>0 & MND=0
NO SORT	364 AD=0 & MD=0 & MND>0
SOME SORT	220 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0

0<AD<1kBq & MD>0	1	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	07:40:05	None

ACT_P <5 kBq 56 16.9%

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 5,840
 2-SEC RECORDS WITH SORTS 331 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 64 91.4%
 3 DETECTORS 6 8.6%
 4 DETECTORS 0 0.0%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 70
 NET 2-SEC RECORDS WITH SORTS 261
 2-SEC PERIODS WITH NO SORTS 5,579
 AVG TIME BETWEEN 2-SEC SORTS 44.8 sec

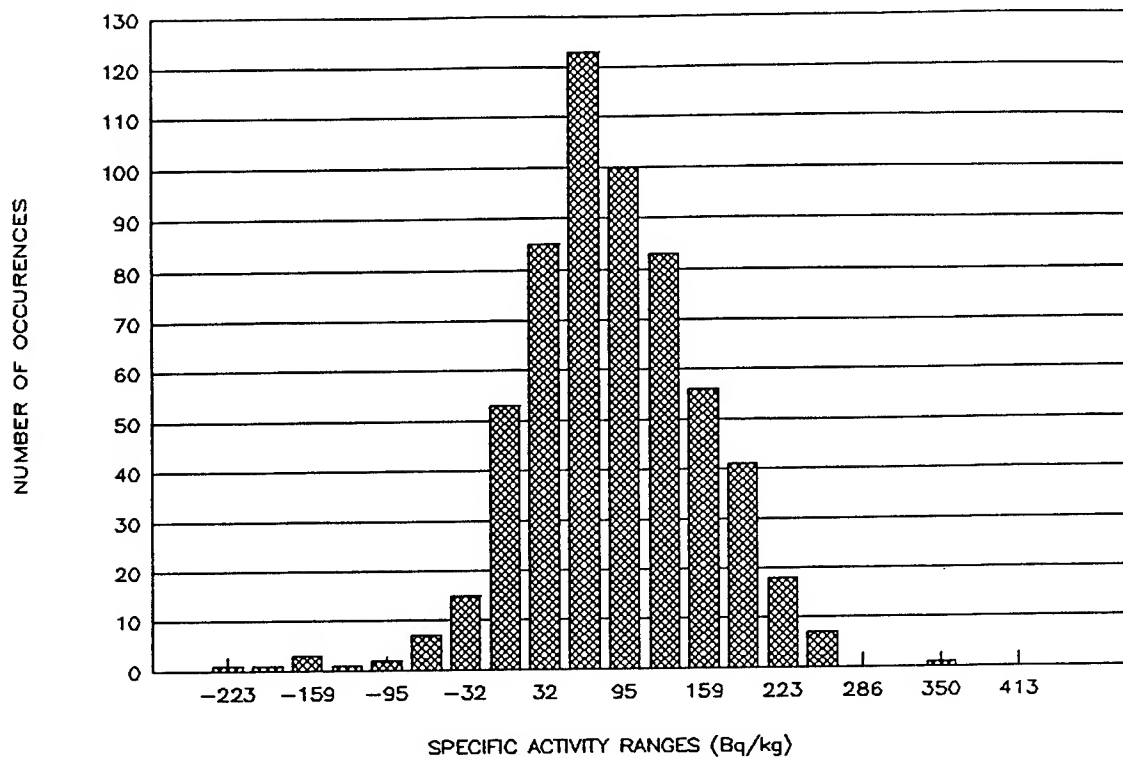
1-GATE SORTS		185	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT FREQ%		ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	8	4.3%	-14000	1	-223	4000	15	4.5%	4
2	30	16.2%	-12000	1	-191	8000	163	49.2%	8
3	27	14.6%	-10000	3	-159	12000	60	18.1%	12
4	40	21.6%	-8000	1	-127	16000	32	9.7%	16
5	39	21.1%	-6000	2	-95	20000	20	6.0%	20
6	24	13.0%	-4000	7	-64	24000	6	1.8%	24
7	14	7.6%	-2000	15	-32	28000	6	1.8%	28
8	3	1.6%	0	53	0	32000	7	2.1%	32
TOTAL	185		2000	85	32	36000	5	1.5%	36
			4000	123	64	40000	2	0.6%	40
			6000	100	95	44000	5	1.5%	44
2-GATE SORTS		146	8000	83	127	48000	0	0.0%	48
DETECTR	SORTS	FREQ%	10000	56	159	52000	0	0.0%	52
8			12000	41	191	56000	1	0.3%	56
9	13	8.9%	14000	18	223	60000	0	0.0%	60
10	22	15.1%	16000	7	254	64000	2	0.6%	64
11	32	21.9%	18000	0	286	68000	0	0.0%	68
12	28	19.2%	20000	0	318	72000	0	0.0%	72
13	28	19.2%	22000	1	350	76000	1	0.3%	76
14	20	13.7%	24000	0	382	80000	0	0.0%	80
15	3	2.1%	26000	0	413	84000	3	0.9%	84
TOTAL	146		>28000	0	0	>84000	3	0.9%	>84
			TOTAL	597		TOTAL	331		
SUMMARY TOTALS									
HOT PARTICLE EVENTS			337	SORTS BY ONE GATE ONLY			185		
MULTIPARTICLE EVENTS			114	SORTS BY TWO GATES			146		
DISTRIBUTED EVENTS			0						

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

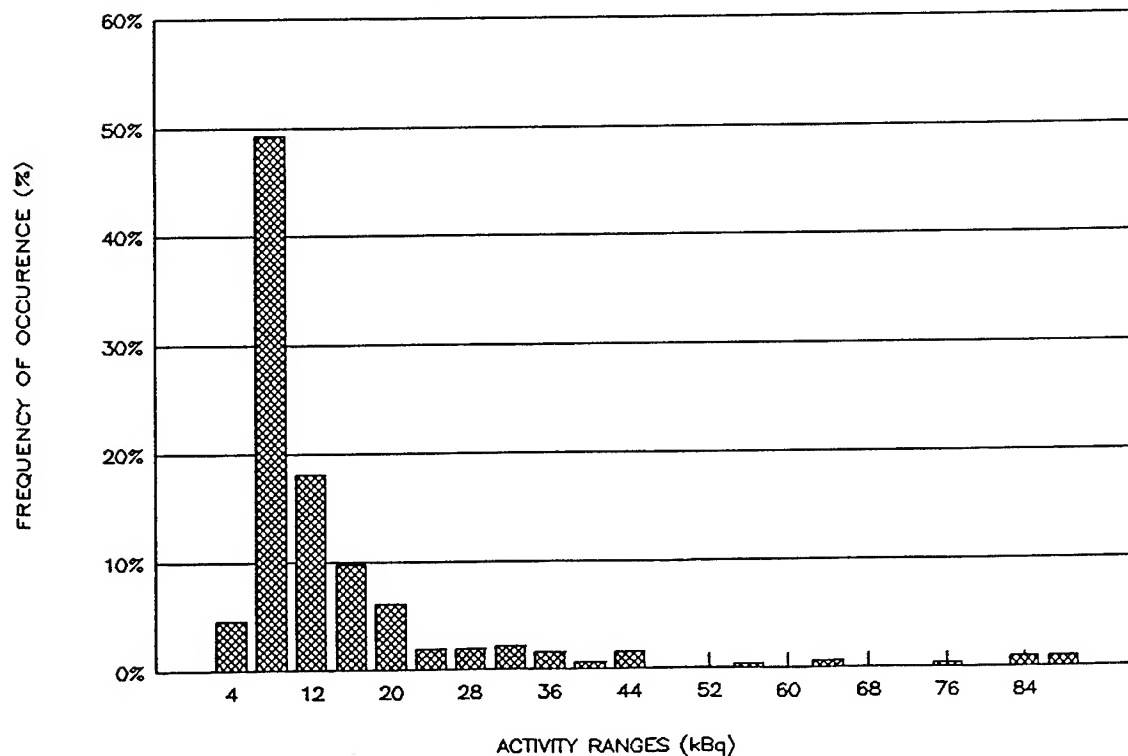
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 08-May-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 08-May-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 08-May-93

AVERAGE BACKGROUND COUNT RATE	0.80	±	ERR c/sec	
SORTER SOIL DENSITY	1.35	tons/m ³		
GROUND SOIL DENSITY	1.65	tons/m ³		
			CONTAMINATED	CLEAN
MASS TOTAL			0.32 tons	25.9 tons
MAXIMUM/SORT			6.3 kg	62.9 kg
MINIMUM/SORT			0.8 kg	56.6 kg
WEIGHT RECOVERY OR VOLUME RECOVERY				98.8%
EQUIVALENT SOIL-IN-GROUND			0.25 yd ³	20.5 yd ³ 20.8 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)				
TOTAL			7,278 kBq	
MAXIMUM/SORT			794 kBq	
MINIMUM/SORT			2.8 kBq	
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			2,115 kBq	2,172 kBq
MAXIMUM/SORT			392 kBq	14 kBq
MINIMUM/SORT			0 Bq	-6 kBq
SPECIFIC ACTIVITY			6,591 Bq/kg	84 Bq/kg
WORK HISTORY				
WORK DAY START	10:09 AM		WORK DAY END	05:30 PM
PLANT START-UP	10:09 AM		PLANT SHUT-DOWN	02:35 PM
START SOIL PROCESSING	11:39 AM		END SOIL PROCESSING	01:57 PM
LUNCH START	11:30 AM		LUNCH PERIOD	0.5 hr
WORK HOURS			6.9 hr	
AVAILABLE HOURS			3.9 hr	
ACTUAL PROCESS HOURS (total 20-sec records)			2.32 hr	
DOWN-TIME			1.62 hr	
TOTAL SYSTEM PAUSE			0.00 hr	
NONAVAILABLE HOURS			2.9 hr	
START-UP			1.50 hr	
SHUT-DOWN			0.62 hr	
PLANT PERFORMANCE			58.9%	
PRODUCTIVITY			33.8%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)			719	
NONPROCESS RECORDS (Test, calibration, etc)			3	
20-SEC PROCESS RECORDS			417	
TOTAL SORT			0 MD>0 & MND=0	
NO SORT			245 AD=0 & MD=0 & MND>0	
SOME SORT			172 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS			0	
0<AD<1kBq & MD>0	1			UNEXPLAIN PAUSE
AD=0 & MD	0			TIME TIME
AD<0 & MD	0			12:39:28 None
ACT_P <5 kBq	58	19.2%		

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 4,170
 2-SEC RECORDS WITH SORTS 302 (ACT_P > 0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 58 80.6%
 3 DETECTORS 12 16.7%
 4 DETECTORS 2 2.8%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 72
 NET 2-SEC RECORDS WITH SORTS 230
 2-SEC PERIODS WITH NO SORTS 3,940
 AVG TIME BETWEEN 2-SEC SORTS 36.3 sec

1-GATE SORTS	147	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#) (Bq/kg)	(Bq)	(#)	(kBq)
1	4	2.7%	-14000	0	-223	4000	15 5.0%
2	11	7.5%	-12000	0	-191	8000	141 46.7%
3	16	10.9%	-10000	1	-159	12000	53 17.5%
4	32	21.8%	-8000	0	-127	16000	25 8.3%
5	32	21.8%	-6000	2	-95	20000	11 3.6%
6	22	15.0%	-4000	0	-64	24000	12 4.0%
7	22	15.0%	-2000	8	-32	28000	11 3.6%
8	8	5.4%	0	21	0	32000	3 1.0%
TOTAL	147		2000	54	32	36000	4 1.3%
			4000	70	64	40000	2 0.7%
			6000	87	95	44000	2 0.7%
2-GATE SORTS	155		8000	81	127	48000	2 0.7%
DETECTR	SORTS	FREQ%	10000	59	159	52000	3 1.0%
8			12000	27	191	56000	4 1.3%
9	8	5.2%	14000	8	223	60000	1 0.3%
10	17	11.0%	16000	2	254	64000	1 0.3%
11	27	17.4%	18000	0	286	68000	1 0.3%
12	30	19.4%	20000	0	318	72000	1 0.3%
13	32	20.6%	22000	0	350	76000	0 0.0%
14	22	14.2%	24000	0	382	80000	0 0.0%
15	19	12.3%	26000	0	413	84000	0 0.0%
TOTAL	155		26000	0	413	84000	0 0.0%
			>28000	0	0	>84000	10 3.3%
			TOTAL	420		TOTAL	302

SUMMARY TOTALS

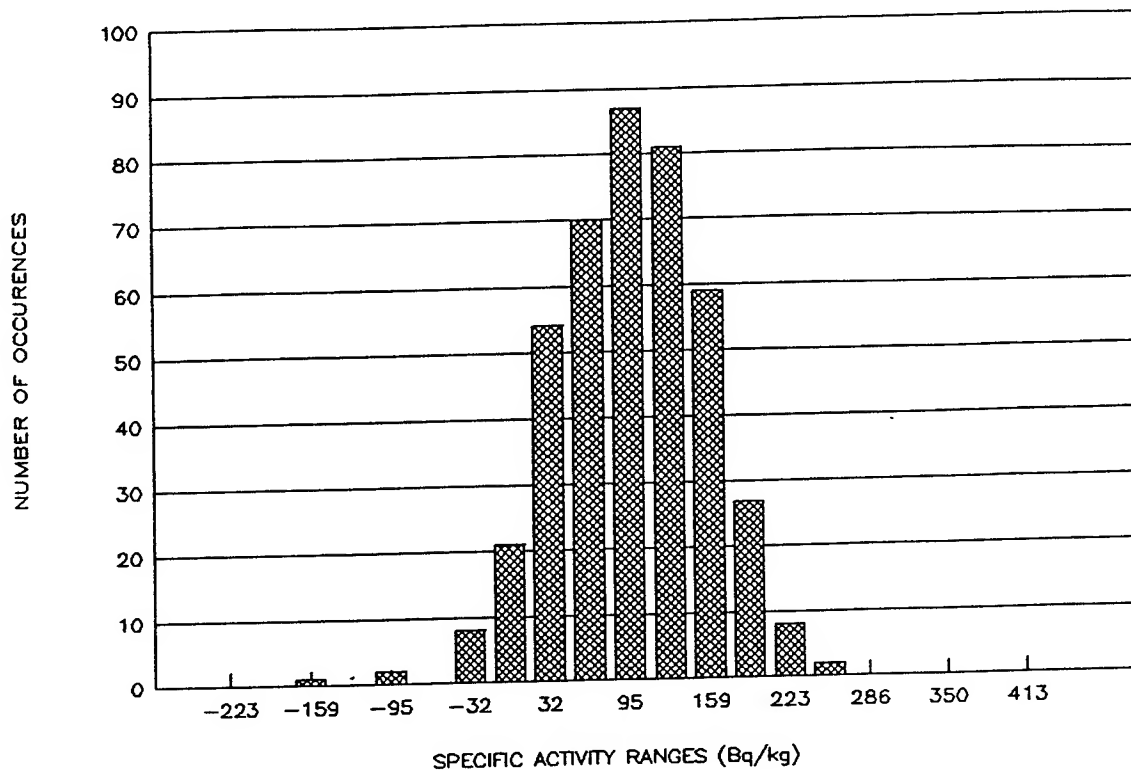
HOT PARTICLE EVENTS	322	SORTS BY ONE GATE ONLY	147
MULTIPARTICLE EVENTS	83	SORTS BY TWO GATES	155
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 08-May-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 07-May-93

AVERAGE BACKGROUND COUNT RATE 0.80 \pm 0.02 c/sec
 SORTER SOIL DENSITY 1.35 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	1.66 tons	117.8 tons
MAXIMUM/SORT	7.1 kg	62.9 kg
MINIMUM/SORT	0.8 kg	55.8 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		98.6%
EQUIVALENT SOIL-IN-GROUND	1.32 yd ³	93.4 yd ³ 94.7 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	26,033 kBq
MAXIMUM/SORT	412 kBq
MINIMUM/SORT	2.6 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	8,623 kBq	11,078 kBq
MAXIMUM/SORT	267 kBq	23 kBq
MINIMUM/SORT	0 Bq	-5 kBq
SPECIFIC ACTIVITY	5,191 Bq/kg	94 Bq/kg

WORK HISTORY

WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:27 AM	END SOIL PROCESSING	05:00 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.5 hr
AVAILABLE HOURS	11.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.55 hr
DOWN-TIME	0.95 hr
TOTAL SYSTEM PAUSE	0.00 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.46 hr
SHUT-DOWN	0.49 hr
PLANT PERFORMANCE	91.7%
PRODUCTIVITY	91.7%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 3,487

NONPROCESS RECORDS (Test, calibration, etc) 8

20-SEC PROCESS RECORDS

1,899

TOTAL SORT	0 MD>0 & MND=0
NO SORT	1,007 AD=0 & MD=0 & MND>0
SOME SORT	892 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0

0<AD<1kBq & MD>0	2	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	10:07:03	None
ACT_P <5 kBq	321 20.2%	14:35:03	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 18,990
 2-SEC RECORDS WITH SORTS 1,588 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 340 82.9%
 3 DETECTORS 62 15.1%
 4 DETECTORS 8 2.0%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 410
 NET 2-SEC RECORDS WITH SORTS 1,178
 2-SEC PERIODS WITH NO SORTS 17,812
 AVG TIME BETWEEN 2-SEC SORTS 32.2 sec

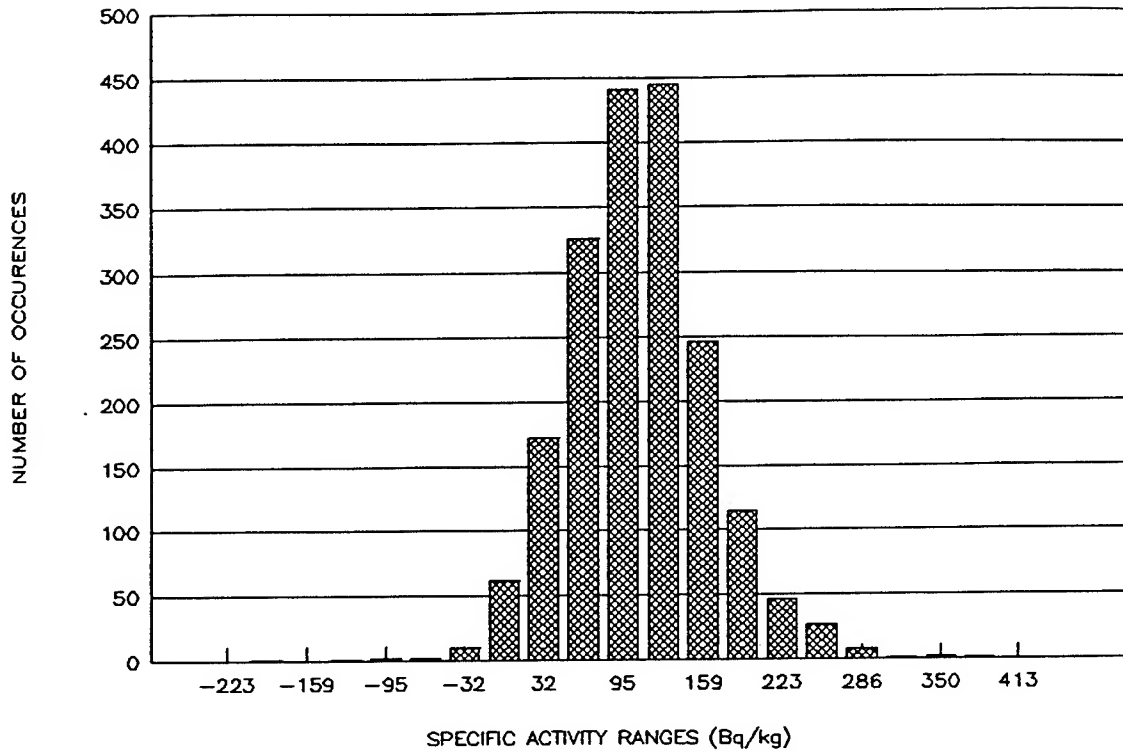
1-GATE SORTS		810	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT FREQ%		ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	15	1.9%	-14000	0	-223	4000	87	5.5%	4
2	53	6.5%	-12000	1	-191	8000	722	45.5%	8
3	121	14.9%	-10000	0	-159	12000	294	18.5%	12
4	135	16.7%	-8000	1	-127	16000	128	8.1%	16
5	176	21.7%	-6000	2	-95	20000	70	4.4%	20
6	142	17.5%	-4000	2	-64	24000	51	3.2%	24
7	114	14.1%	-2000	10	-32	28000	43	2.7%	28
8	54	6.7%	0	61	0	32000	37	2.3%	32
TOTAL	810		2000	173	32	36000	17	1.1%	36
			4000	326	64	40000	13	0.8%	40
			6000	441	95	44000	17	1.1%	44
2-GATE SORTS		778	8000	445	127	48000	6	0.4%	48
DETECTR	SORTS	FREQ%	10000	246	159	52000	11	0.7%	52
8			12000	115	191	56000	8	0.5%	56
9	40	5.1%	14000	46	223	60000	6	0.4%	60
10	91	11.7%	16000	26	254	64000	7	0.4%	64
11	131	16.8%	18000	8	286	68000	6	0.4%	68
12	134	17.2%	20000	1	318	72000	6	0.4%	72
13	149	19.2%	22000	2	350	76000	8	0.5%	76
14	132	17.0%	24000	1	382	80000	6	0.4%	80
15	101	13.0%	26000	0	413	84000	4	0.3%	84
TOTAL	778		>28000	0	0	>84000	41	2.6%	>84
			TOTAL	1907		TOTAL	1588		
SUMMARY TOTALS									
HOT PARTICLE EVENTS			1617	SORTS BY ONE GATE ONLY			810		
MULTIPARTICLE EVENTS			479	SORTS BY TWO GATES			778		
DISTRIBUTED EVENTS			0						

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

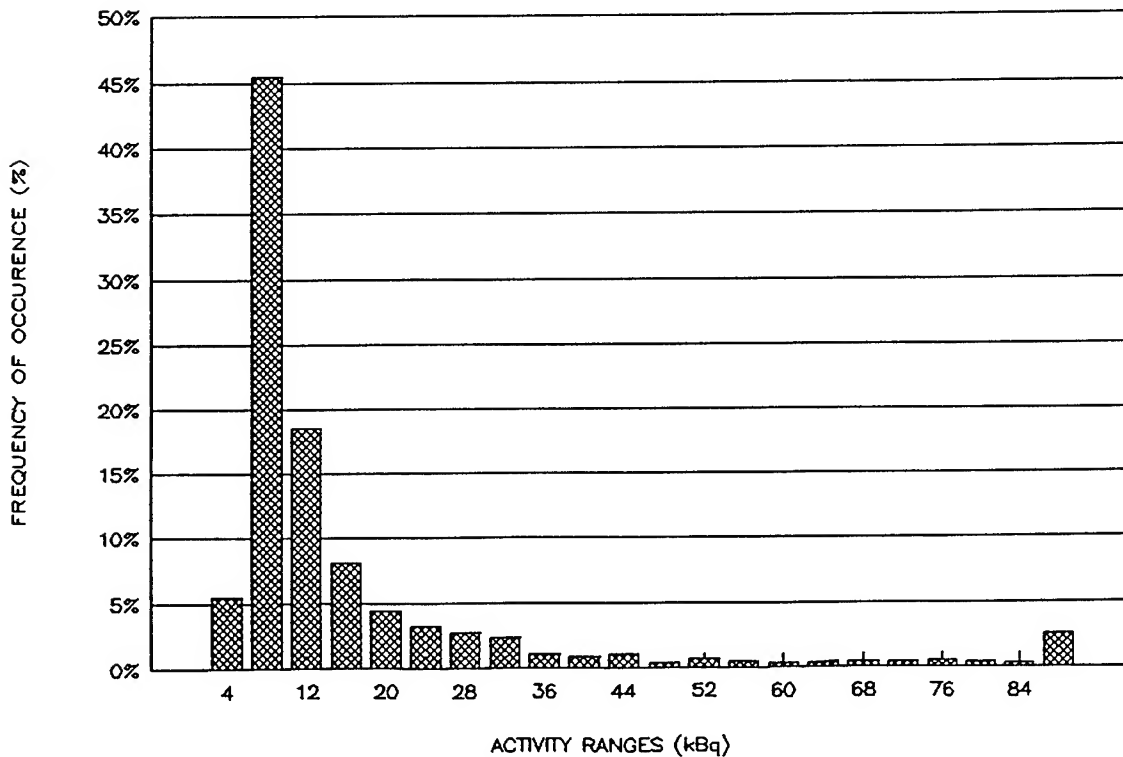
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 07-May-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 07-May-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 07-May-93

AVERAGE BACKGROUND COUNT RATE 0.87 ± 0.05 c/sec
 SORTER SOIL DENSITY 1.35 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	1.67 tons	117.8 tons
MAXIMUM/SORT	8.6 kg	62.9 kg
MINIMUM/SORT	0.8 kg	54.2 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		98.6%
EQUIVALENT SOIL-IN-GROUND	1.32 yd ³	93.4 yd ³ 94.7 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	33,251 kBq
MAXIMUM/SORT	2,542 kBq
MINIMUM/SORT	2.6 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	10,966 kBq	10,564 kBq
MAXIMUM/SORT	1300 kBq	21 kBq
MINIMUM/SORT	-24 Bq	-11 kBq
SPECIFIC ACTIVITY	6,567 Bq/kg	90 Bq/kg

WORK HISTORY			
WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:25 AM	END SOIL PROCESSING	04:59 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.5 hr
AVAILABLE HOURS	11.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.55 hr
DOWN-TIME	0.95 hr
TOTAL SYSTEM PAUSE	0.00 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.42 hr
SHUT-DOWN	0.51 hr
PLANT PERFORMANCE	91.7%
PRODUCTIVITY	91.7%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	3,429
NONPROCESS RECORDS (Test, calibration, etc)	8

20-SEC PROCESS RECORDS	1,899
TOTAL SORT	0 MD>0 & MND=0
NO SORT	956 AD=0 & MD=0 & MND>0
SOME SORT	941 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	2
0<AD<1kBq & MD>0	5
AD=0 & MD	1
AD<0 & MD	1
ACT_P <5 kBq	241 15.8%

UNEXPLAIN	PAUSE
TIME	TIME
07:04:24	None
07:41:24	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	18,990	11:42:24
2-SEC RECORDS WITH SORTS	1,530 (ACT_P >0 kBq)	12:34:44
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		14:05:04
2 DETECTORS	312 82.3%	14:51:24
3 DETECTORS	58 15.3%	16:59:24
4 DETECTORS	9 2.4%	
5 DETECTORS	0 0.0%	
6 DETECTORS	0 0.0%	
7 DETECTORS	0 0.0%	
8 DETECTORS	0 0.0%	
TOTAL	379	
NET 2-SEC RECORDS WITH SORTS	1,151	
2-SEC PERIODS WITH NO SORTS	17,839	
AVG TIME BETWEEN 2-SEC SORTS	33.0 sec	

1-GATE SORTS	800	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	29	3.6%	-14000	2	-223	4000	65	4.2%
2	115	14.4%	-12000	1	-191	8000	688	45.0%
3	133	16.6%	-10000	1	-159	12000	267	17.5%
4	151	18.9%	-8000	3	-127	16000	129	8.4%
5	140	17.5%	-6000	1	-95	20000	82	5.4%
6	129	16.1%	-4000	7	-64	24000	50	3.3%
7	82	10.3%	-2000	22	-32	28000	47	3.1%
8	21	2.6%	0	77	0	32000	32	2.1%
TOTAL	800		2000	199	32	36000	24	1.6%
			4000	346	64	40000	14	0.9%
2-GATE SORTS	730	6000	436	95	44000	19	1.2%	44
DETECTR	SORTS	FREQ%	8000	393	127	48000	6	0.4%
8			10000	198	159	52000	12	0.8%
9	57	7.8%	12000	127	191	56000	8	0.5%
10	101	13.8%	14000	49	223	60000	9	0.6%
11	146	20.0%	16000	24	254	64000	7	0.5%
12	158	21.6%	18000	14	286	68000	7	0.5%
13	144	19.7%	20000	6	318	72000	1	0.1%
14	87	11.9%	22000	1	350	76000	7	0.5%
15	37	5.1%	24000	0	382	80000	3	0.2%
TOTAL	730		26000	0	413	84000	5	0.3%
			>28000	0	0	>84000	48	3.1%
			TOTAL	1907		TOTAL	1530	

SUMMARY TOTALS

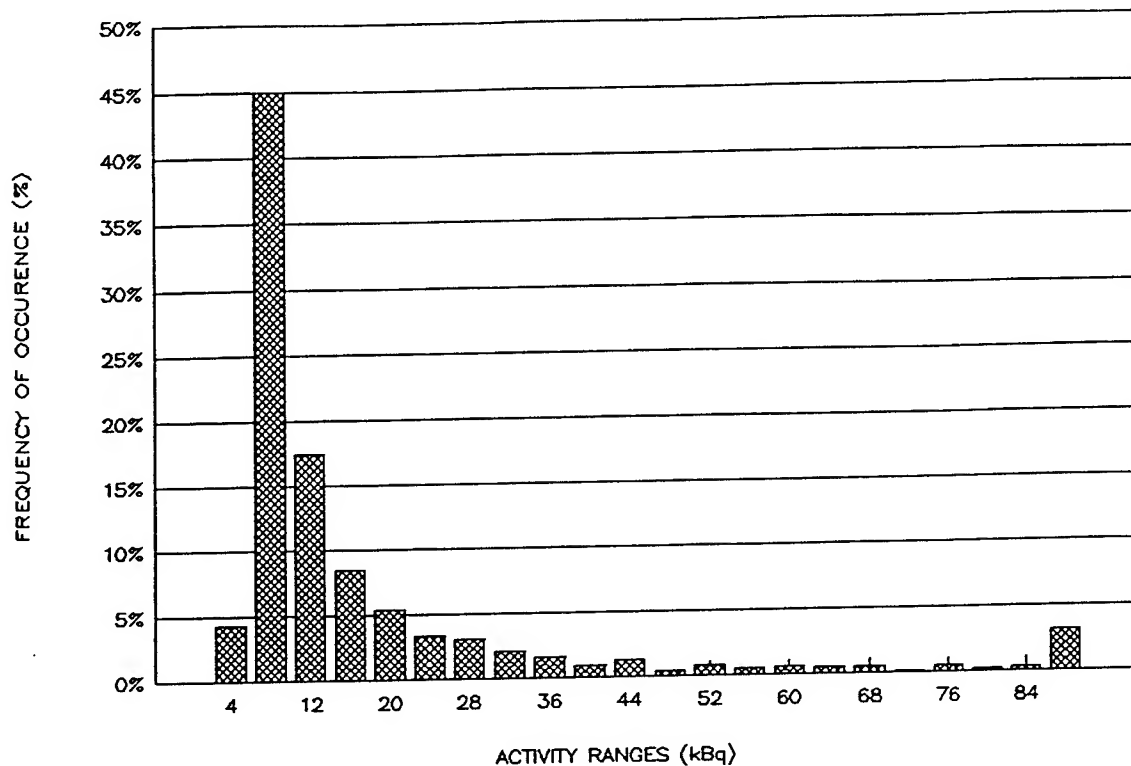
HOT PARTICLE EVENTS	1560	SORTS BY ONE GATE ONLY	800
MULTIPARTICLE EVENTS	545	SORTS BY TWO GATES	730
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

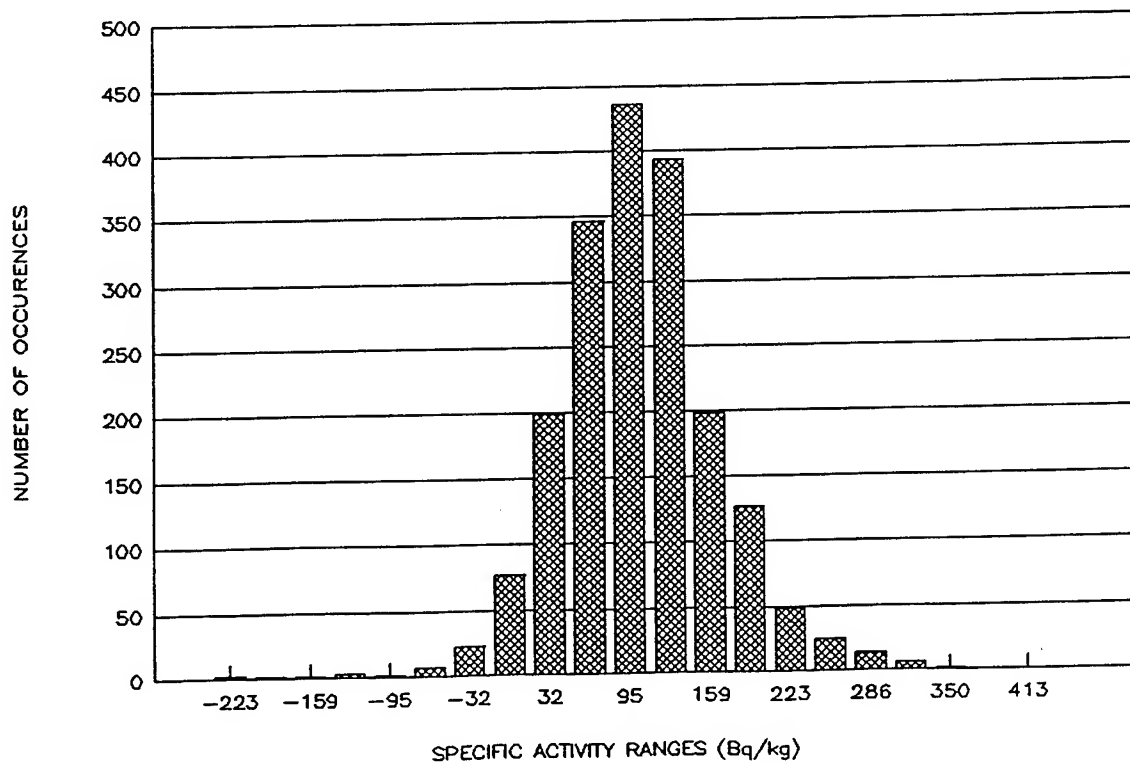
JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 07-May-93



CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 07-May-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 06-May-93

AVERAGE BACKGROUND COUNT RATE 0.80 ± 0.03 c/sec
 SORTER SOIL DENSITY 1.35 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	1.78 tons	119.4 tons
MAXIMUM/SORT	8.6 kg	62.9 kg
MINIMUM/SORT	0.8 kg	54.2 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		98.5%
EQUIVALENT SOIL-IN-GROUND	1.41 yd ³	94.7 yd ³ 96.1 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	33,309 kBq
MAXIMUM/SORT	1,728 kBq
MINIMUM/SORT	2.9 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	10,676 kBq	11,721 kBq
MAXIMUM/SORT	470 kBq	20 kBq
MINIMUM/SORT	0 Bq	-13 kBq
SPECIFIC ACTIVITY	6,014 Bq/kg	98 Bq/kg

WORK HISTORY

WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:16 AM	END SOIL PROCESSING	05:09 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.5 hr
AVAILABLE HOURS	11.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.71 hr
DOWN-TIME	0.79 hr
TOTAL SYSTEM PAUSE	0.19 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.27 hr
SHUT-DOWN	0.33 hr
PLANT PERFORMANCE	93.1%
PRODUCTIVITY	93.1%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	3,628
NONPROCESS RECORDS (Test, calibration, etc)	9

20-SEC PROCESS RECORDS

TOTAL SORT	0 MD>0 & MND=0		
NO SORT	997 AD=0 & MD=0 & MND>0		
SOME SORT	930 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	1	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	15:31:15	12:25
ACT_P <5 kBq	338	19.9%	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 19,270
 2-SEC RECORDS WITH SORTS 1,701 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 369 81.5%
 3 DETECTORS 72 15.9%
 4 DETECTORS 12 2.6%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 453
 NET 2-SEC RECORDS WITH SORTS 1,248
 2-SEC PERIODS WITH NO SORTS 18,022
 AVG TIME BETWEEN 2-SEC SORTS 30.9 sec

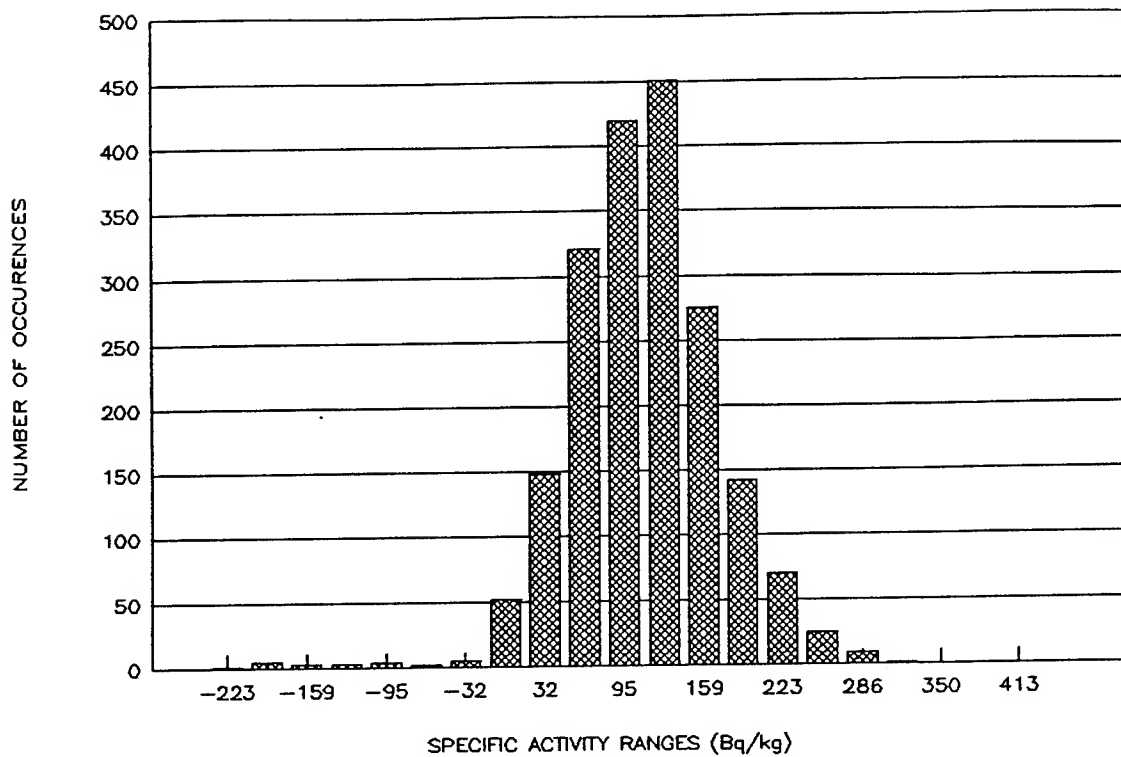
1-GATE SORTS	863	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	21	2.4%	-14000	1	-223	4000	87	5.1%
2	80	9.3%	-12000	5	-191	8000	796	46.8%
3	130	15.1%	-10000	3	-159	12000	292	17.2%
4	138	16.0%	-8000	3	-127	16000	130	7.6%
5	159	18.4%	-6000	4	-95	20000	77	4.5%
6	149	17.3%	-4000	2	-64	24000	53	3.1%
7	142	16.5%	-2000	5	-32	28000	39	2.3%
8	44	5.1%	0	52	0	32000	39	2.3%
TOTAL	863		2000	148	32	36000	19	1.1%
			4000	321	64	40000	20	1.2%
			6000	420	95	44000	13	0.8%
2-GATE SORTS	838		8000	451	127	48000	17	1.0%
DETECTR	SORTS	FREQ%	10000	275	159	52000	13	0.8%
8			12000	142	191	56000	9	0.5%
9	45	5.4%	14000	70	223	60000	9	0.5%
10	118	14.1%	16000	24	254	64000	10	0.6%
11	145	17.3%	18000	9	286	68000	8	0.5%
12	144	17.2%	20000	1	318	72000	9	0.5%
13	147	17.5%	22000	0	350	76000	5	0.3%
14	145	17.3%	24000	0	382	80000	4	0.2%
15	94	11.2%	26000	0	413	84000	6	0.4%
TOTAL	838		>28000	0	0	>84000	46	2.7%
			TOTAL	1936		TOTAL	1701	
SUMMARY TOTALS								
HOT PARTICLE EVENTS		1718			SORTS BY ONE GATE ONLY	863		
MULTIPARTICLE EVENTS		523			SORTS BY TWO GATES	838		
DISTRIBUTED EVENTS		0						

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

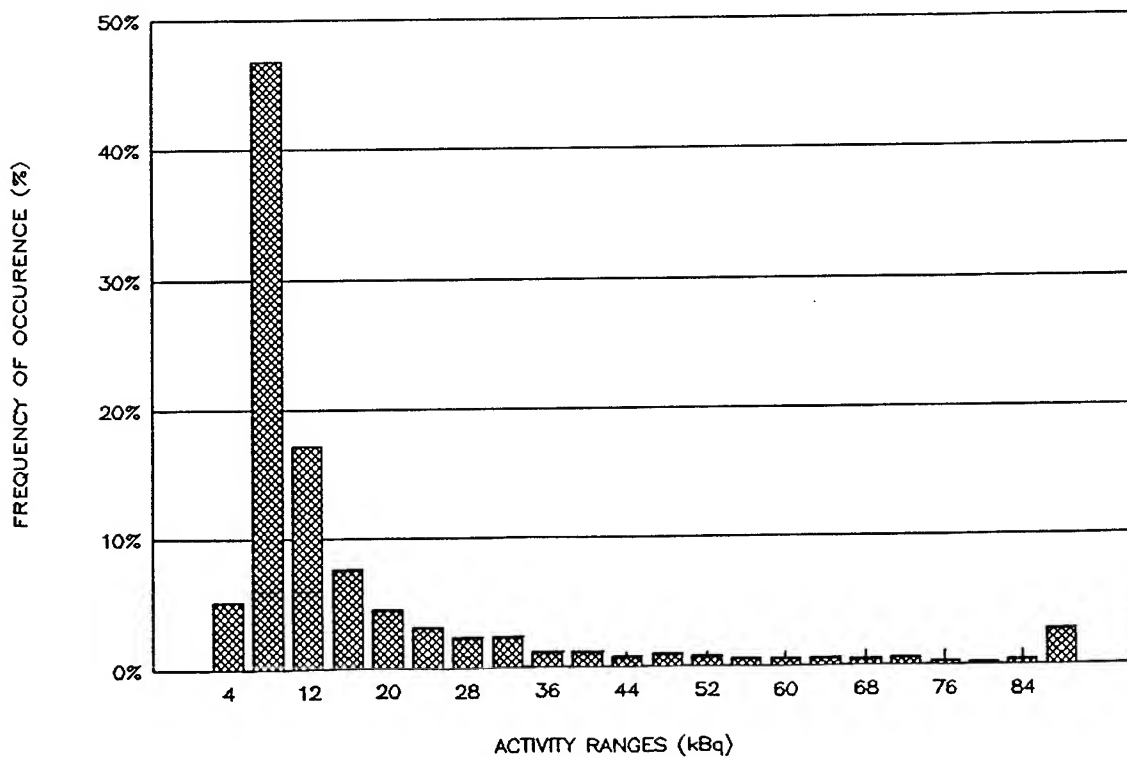
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 06-May-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 06-May-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 06-May-93

AVERAGE BACKGROUND COUNT RATE 0.85 ± 0.05 c/sec
 SORTER SOIL DENSITY 1.35 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	1.65 tons	120.1 tons
MAXIMUM/SORT	7.9 kg	62.9 kg
MINIMUM/SORT	0.8 kg	55 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		98.6%
EQUIVALENT SOIL-IN-GROUND	1.31 yd ³	95.2 yd ³ 96.5 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	31,706 kBq
MAXIMUM/SORT	1,901 kBq
MINIMUM/SORT	3.0 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY		
MAXIMUM/SORT	10,496 kBq	10,523 kBq
MINIMUM/SORT	1058 kBq	19 kBq
SPECIFIC ACTIVITY	-453 Bq	-17 kBq
	6,347 Bq/kg	88 Bq/kg

WORK HISTORY			
WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:14 AM	END SOIL PROCESSING	05:10 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.5 hr
AVAILABLE HOURS	11.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.76 hr
DOWN-TIME	0.74 hr
TOTAL SYSTEM PAUSE	0.19 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.24 hr
SHUT-DOWN	0.32 hr
PLANT PERFORMANCE	93.5%
PRODUCTIVITY	93.5%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 3,446
 NONPROCESS RECORDS (Test, calibration, etc) 0

20-SEC PROCESS RECORDS	1,936
TOTAL SORT	0 MD>0 & MND=0
NO SORT	1,001 AD=0 & MD=0 & MND>0
SOME SORT	933 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	2
0<AD<1kBq & MD>0	2
AD=0 & MD	0
AD<0 & MD	2
ACT_P <5 kBq	261 17.3%

UNEXPLAIN	PAUSE
TIME	TIME
12:42:56	12:25
12:54:16	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	19,360	17:07:56
2-SEC RECORDS WITH SORTS	1,510 (ACT_P >0 kBq)	17:09:36
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		
2 DETECTORS	296	83.1%
3 DETECTORS	53	14.9%
4 DETECTORS	6	1.7%
5 DETECTORS	1	0.3%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	356	
NET 2-SEC RECORDS WITH SORTS	1,154	
2-SEC PERIODS WITH NO SORTS	18,206	
AVG TIME BETWEEN 2-SEC SORTS	33.6 sec	

1-GATE SORTS	790	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P	
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)	
1	37	4.7%	-14000	3	-223	4000	62	4.1%	4
2	100	12.7%	-12000	6	-191	8000	719	47.6%	8
3	129	16.3%	-10000	3	-159	12000	287	19.0%	12
4	152	19.2%	-8000	1	-127	16000	119	7.9%	16
5	159	20.1%	-6000	3	-95	20000	66	4.4%	20
6	112	14.2%	-4000	11	-64	24000	34	2.3%	24
7	78	9.9%	-2000	12	-32	28000	27	1.8%	28
8	23	2.9%	0	84	0	32000	31	2.1%	32
TOTAL	790		2000	191	32	36000	20	1.3%	36
			4000	363	64	40000	14	0.9%	40
2-GATE SORTS	720	6000	451	95	44000	20	1.3%	44	
DETECTR	SORTS	FREQ%	8000	344	127	48000	15	1.0%	48
8			10000	239	159	52000	8	0.5%	52
9	66	9.2%	12000	130	191	56000	4	0.3%	56
10	85	11.8%	14000	53	223	60000	6	0.4%	60
11	136	18.9%	16000	24	254	64000	3	0.2%	64
12	153	21.3%	18000	14	286	68000	1	0.1%	68
13	147	20.4%	20000	4	318	72000	5	0.3%	72
14	80	11.1%	22000	0	350	76000	10	0.7%	76
15	53	7.4%	24000	0	382	80000	4	0.3%	80
TOTAL	720		26000	0	413	84000	4	0.3%	84
			>28000	0	0	>84000	51	3.4%	>84
			TOTAL	1936		TOTAL	1510		

SUMMARY TOTALS

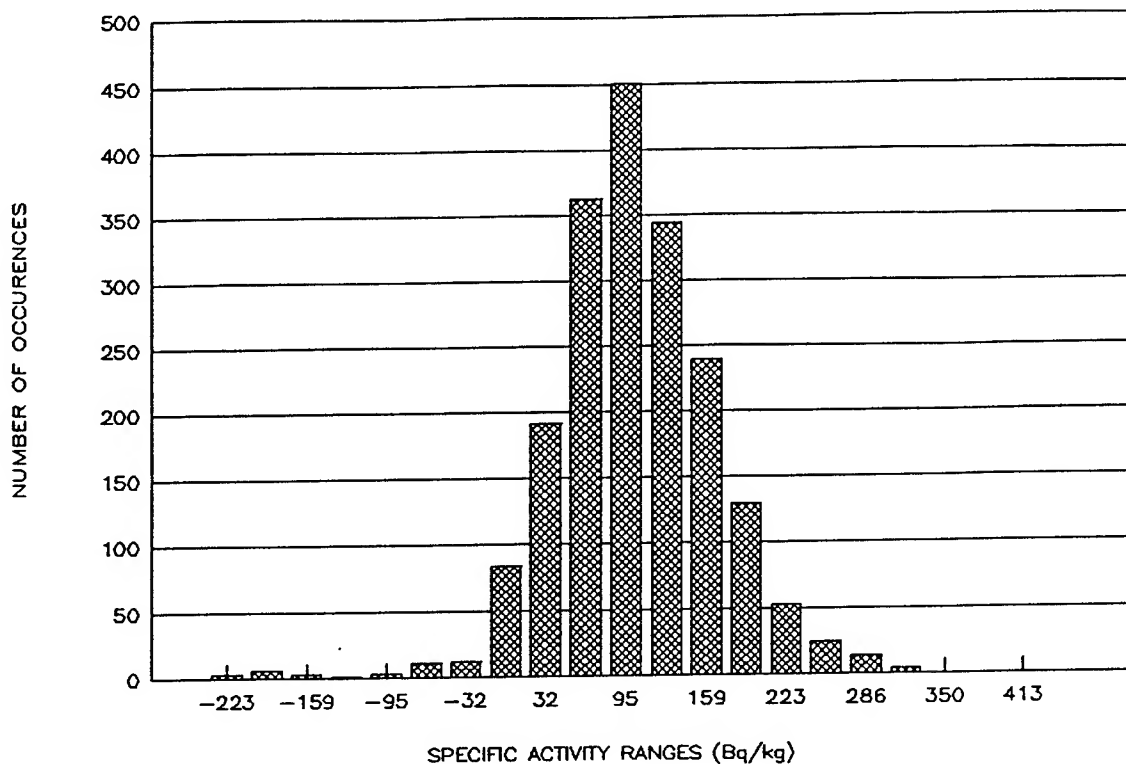
HOT PARTICLE EVENTS	1539	SORTS BY ONE GATE ONLY	790
MULTIPARTICLE EVENTS	547	SORTS BY TWO GATES	720
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

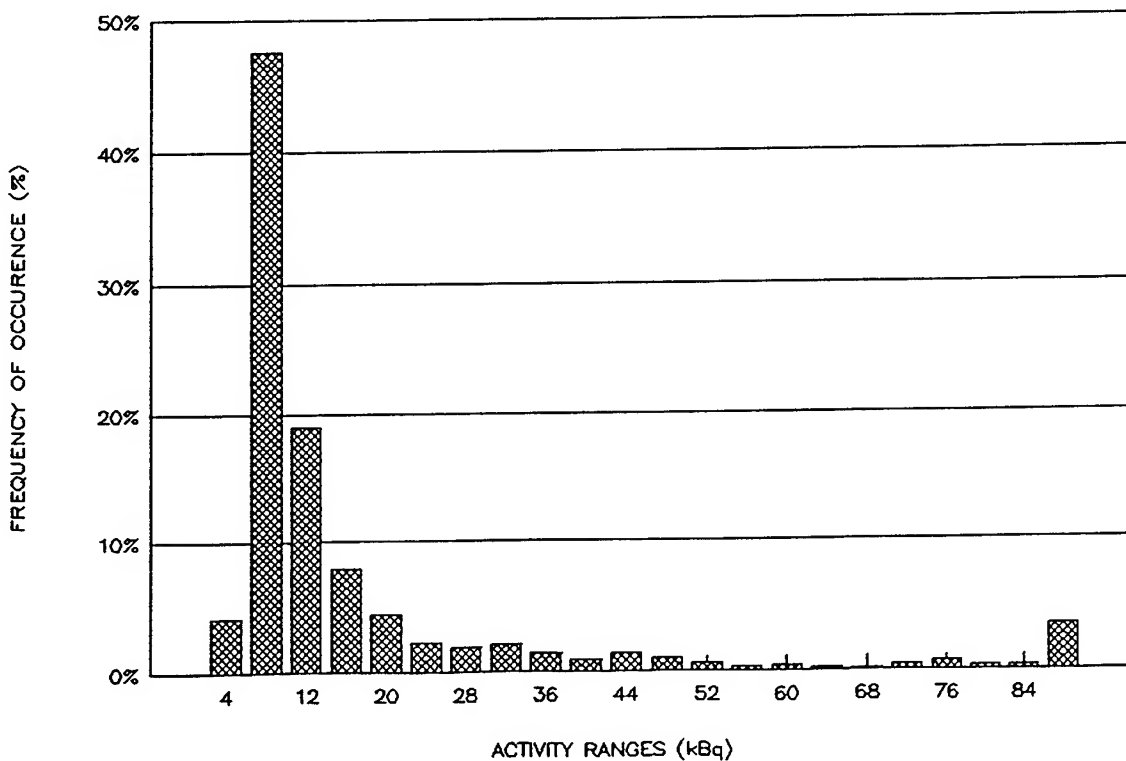
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 06-May-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 06-May-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 05-May-93

AVERAGE BACKGROUND COUNT RATE	0.80 ± 0.02 c/sec		
SORTER SOIL DENSITY	1.35 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		1.61 tons	119.7 tons
MAXIMUM/SORT		8.6 kg	62.9 kg
MINIMUM/SORT		0.8 kg	54.2 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			98.7%
EQUIVALENT SOIL-IN-GROUND	1.28 yd ³	94.9 yd ³	96.2 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	33,487 kBq		
MAXIMUM/SORT	1,237 kBq		
MINIMUM/SORT	2.9 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	10,392 kBq	8,983 kBq	
MAXIMUM/SORT	740 kBq	18 kBq	
MINIMUM/SORT	0 Bq	-7 kBq	
SPECIFIC ACTIVITY	6,438 Bq/kg	75 Bq/kg	
WORK HISTORY			
WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:16 AM	END SOIL PROCESSING	04:59 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS		11.5 hr	
AVAILABLE HOURS		11.5 hr	
ACTUAL PROCESS HOURS (total 20-sec records)		10.72 hr	
DOWN-TIME		0.78 hr	
TOTAL SYSTEM PAUSE		0.00 hr	
NONAVAILABLE HOURS		0.0 hr	
START-UP		0.28 hr	
SHUT-DOWN		0.51 hr	
PLANT PERFORMANCE		93.2%	
PRODUCTIVITY		93.2%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)		3,519	
NONPROCESS RECORDS (Test, calibration, etc)		4	
20-SEC PROCESS RECORDS		1,929	
TOTAL SORT		0 MD>0 & MND=0	
NO SORT		1,061 AD=0 & MD=0 & MND>0	
SOME SORT		868 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS		0	
0<AD<1kBq & MD>0	7		UNEXPLAIN PAUSE
AD=0 & MD	0		TIME TIME
AD<0 & MD	0		08:25:54 None
ACT_P <5 kBq	305	19.2%	09:57:14

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	19,290	11:48:54
2-SEC RECORDS WITH SORTS	1,590 (ACT_P >0 kBq)	11:59:54
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		14:18:14
2 DETECTORS	357 83.0%	15:02:34
3 DETECTORS	58 13.5%	15:36:34
4 DETECTORS	13 3.0%	
5 DETECTORS	2 0.5%	
6 DETECTORS	0 0.0%	
7 DETECTORS	0 0.0%	
8 DETECTORS	0 0.0%	
TOTAL	430	
NET 2-SEC RECORDS WITH SORTS	1,160	
2-SEC PERIODS WITH NO SORTS	18,130	
AVG TIME BETWEEN 2-SEC SORTS	33.3 sec	

1-GATE SORTS	807	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	20	2.5%	-14000	0	-223	4000	88	5.5%
2	70	8.7%	-12000	0	-191	8000	705	44.3%
3	92	11.4%	-10000	0	-159	12000	262	16.5%
4	135	16.7%	-8000	1	-127	16000	137	8.6%
5	153	19.0%	-6000	1	-95	20000	92	5.8%
6	150	18.6%	-4000	14	-64	24000	50	3.1%
7	138	17.1%	-2000	34	-32	28000	40	2.5%
8	49	6.1%	0	157	0	32000	38	2.4%
TOTAL	807		2000	270	32	36000	18	1.1%
			4000	366	64	40000	24	1.5%
2-GATE SORTS	783		6000	394	95	44000	15	0.9%
DETECTR	SORTS	FREQ%	8000	342	127	48000	7	0.4%
8			10000	215	159	52000	7	0.4%
9	36	4.6%	12000	90	191	56000	7	0.4%
10	87	11.1%	14000	37	223	60000	5	0.3%
11	114	14.6%	16000	8	254	64000	9	0.6%
12	135	17.2%	18000	3	286	68000	3	0.2%
13	153	19.5%	20000	1	318	72000	2	0.1%
14	146	18.6%	22000	0	350	76000	10	0.6%
15	112	14.3%	24000	0	382	80000	6	0.4%
TOTAL	783		26000	0	413	84000	3	0.2%
			>28000	0	0	>84000	62	3.9%
			TOTAL	1933		TOTAL	1590	

SUMMARY TOTALS

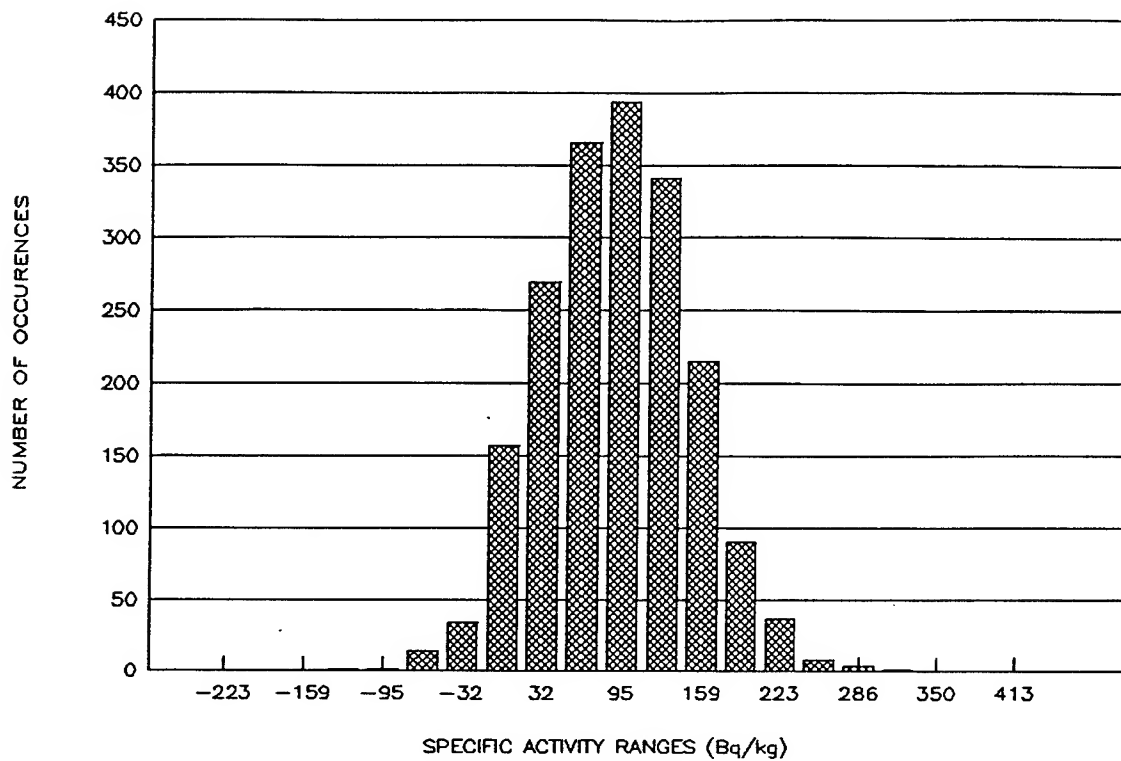
HOT PARTICLE EVENTS	1606	SORTS BY ONE GATE ONLY	807
MULTIPARTICLE EVENTS	432	SORTS BY TWO GATES	783
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

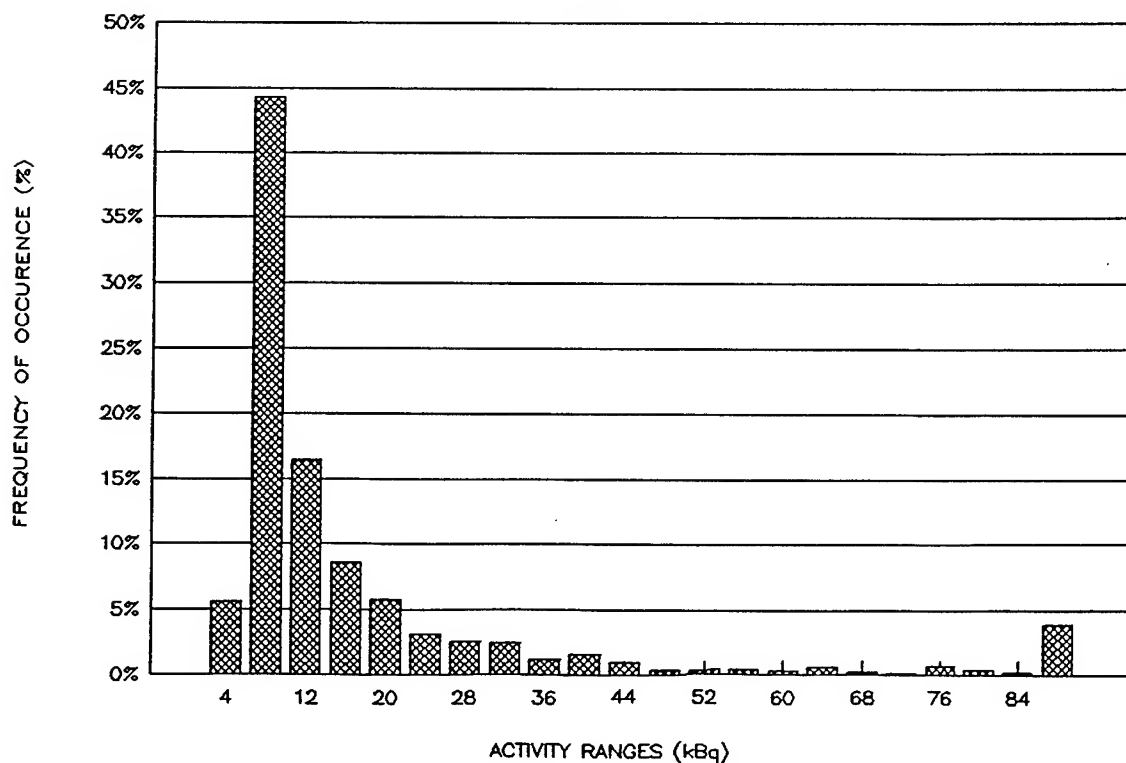
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 05-May-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 05-May-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 05-May-93

AVERAGE BACKGROUND COUNT RATE	0.87 ± 0.05 c/sec		
SORTER SOIL DENSITY	1.35 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	1.67 tons	119.5 tons	
MAXIMUM/SORT	7.9 kg	62.9 kg	
MINIMUM/SORT	0.8 kg	55 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			98.6%
EQUIVALENT SOIL-IN-GROUND	1.32 yd ³	94.7 yd ³	96.1 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	29,918 kBq		
MAXIMUM/SORT	1,724 kBq		
MINIMUM/SORT	3.0 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	9,992 kBq	9,324 kBq	
MAXIMUM/SORT	1137 kBq	18 kBq	
MINIMUM/SORT	-95 Bq	-10 kBq	
SPECIFIC ACTIVITY	5,979 Bq/kg	78 Bq/kg	
WORK HISTORY			
WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:16 AM	END SOIL PROCESSING	04:58 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS	11.5 hr		
AVAILABLE HOURS	11.5 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	10.71 hr		
DOWN-TIME	0.79 hr		
TOTAL SYSTEM PAUSE	0.00 hr		
NONAVAILABLE HOURS	0.0 hr		
START-UP	0.28 hr		
SHUT-DOWN	0.52 hr		
PLANT PERFORMANCE	93.1%		
PRODUCTIVITY	93.1%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	3,429		
NONPROCESS RECORDS (Test, calibration, etc)	6		
20-SEC PROCESS RECORDS	1,927		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	988 AD=0 & MD=0 & MND>0		
SOME SORT	938 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	1		
0<AD<1kBq & MD>0	9	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	1	06:26:34	None
ACT_P <5 kBq	272 18.1%	07:57:34	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	19,270	08:33:34
2-SEC RECORDS WITH SORTS	1,502 (ACT_P >0 kBq)	10:46:34
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		11:25:14
2 DETECTORS	267 83.4%	11:25:54
3 DETECTORS	49 15.3%	13:40:34
4 DETECTORS	4 1.3%	13:52:14
5 DETECTORS	0 0.0%	15:07:54
6 DETECTORS	0 0.0%	16:51:34
7 DETECTORS	0 0.0%	
8 DETECTORS	0 0.0%	
TOTAL	320	
NET 2-SEC RECORDS WITH SORTS	1,182	
2-SEC PERIODS WITH NO SORTS	18,088	
AVG TIME BETWEEN 2-SEC SORTS	32.6 sec	

1-GATE SORTS	775	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	42	5.4%	-14000	1	-223	4000	69	4.6%
2	112	14.5%	-12000	0	-191	8000	695	46.3%
3	133	17.2%	-10000	0	-159	12000	259	17.2%
4	147	19.0%	-8000	3	-127	16000	142	9.5%
5	145	18.7%	-6000	7	-95	20000	87	5.8%
6	115	14.8%	-4000	17	-64	24000	40	2.7%
7	69	8.9%	-2000	49	-32	28000	33	2.2%
8	12	1.5%	0	130	0	32000	29	1.9%
TOTAL	775		2000	215	32	36000	28	1.9%
			4000	368	64	40000	10	0.7%
2-GATE SORTS	727		6000	410	95	44000	12	0.8%
DETECTR	SORTS	FREQ%	8000	349	127	48000	8	0.5%
8			10000	222	159	52000	7	0.5%
9	70	9.6%	12000	103	191	56000	7	0.5%
10	107	14.7%	14000	43	223	60000	6	0.4%
11	159	21.9%	16000	11	254	64000	4	0.3%
12	139	19.1%	18000	5	286	68000	4	0.3%
13	121	16.6%	20000	0	318	72000	3	0.2%
14	99	13.6%	22000	0	350	76000	5	0.3%
15	32	4.4%	24000	0	382	80000	3	0.2%
TOTAL	727		26000	0	413	84000	4	0.3%
			>28000	0	0	>84000	47	3.1%
			TOTAL	1933		TOTAL	1502	

SUMMARY TOTALS

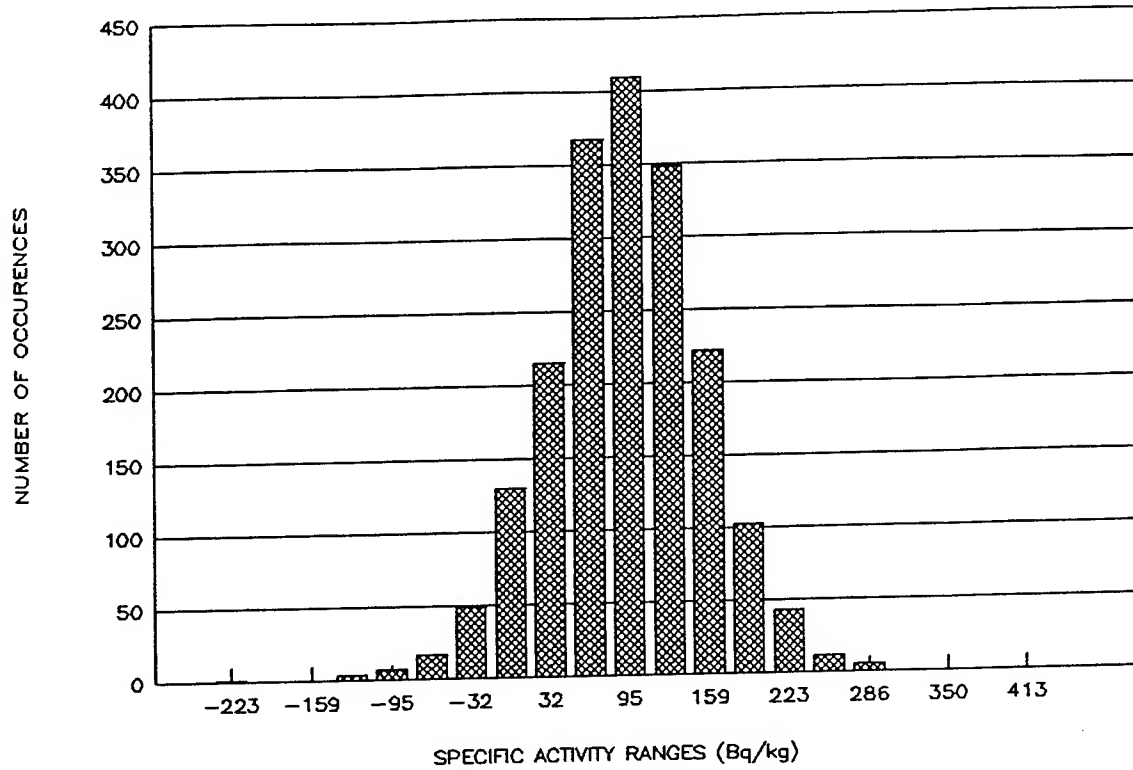
HOT PARTICLE EVENTS	1576	SORTS BY ONE GATE ONLY	775
MULTIPARTICLE EVENTS	532	SORTS BY TWO GATES	727
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 05-May-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 04-May-93

AVERAGE BACKGROUND COUNT RATE	0.80 ± 0.02 c/sec		
SORTER SOIL DENSITY	1.35 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		1.35 tons	119.3 tons
MAXIMUM/SORT		7.1 kg	62.9 kg
MINIMUM/SORT		0.8 kg	55.8 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			98.9%
EQUIVALENT SOIL-IN-GROUND	1.07 yd ³	94.6 yd ³	95.6 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	35,210 kBq		
MAXIMUM/SORT	6,637 kBq		
MINIMUM/SORT	2.6 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	10,489 kBq	6,881 kBq	
MINIMUM/SORT	3726 kBq	20 kBq	
SPECIFIC ACTIVITY	0 Bq	-7 kBq	
	7,781 Bq/kg	58 Bq/kg	
WORK HISTORY			
WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:21 AM	END SOIL PROCESSING	05:00 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS		11.5 hr	
AVAILABLE HOURS		11.5 hr	
ACTUAL PROCESS HOURS (total 20-sec records)		10.66 hr	
DOWN-TIME		0.84 hr	
TOTAL SYSTEM PAUSE		0.00 hr	
NONAVAILABLE HOURS		0.0 hr	
START-UP		0.36 hr	
SHUT-DOWN		0.49 hr	
PLANT PERFORMANCE		92.7%	
PRODUCTIVITY		92.7%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)		3,226	
NONPROCESS RECORDS (Test, calibration, etc)		3	
20-SEC PROCESS RECORDS		1,918	
TOTAL SORT		0 MD>0 & MND=0	
NO SORT		1,179 AD=0 & MD=0 & MND>0	
SOME SORT		739 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS		0	
0<AD<1kBq & MD>0	5		UNEXPLAIN PAUSE
AD=0 & MD	0		TIME TIME
AD<0 & MD	0		08:27:07 None
ACT_P <5 kBq	258 19.7%		09:12:07

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	19,180	09:18:27
2-SEC RECORDS WITH SORTS	1,308 (ACT_P >0 kBq)	11:44:07
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		15:49:27
2 DETECTORS	266 83.4%	
3 DETECTORS	46 14.4%	
4 DETECTORS	5 1.6%	
5 DETECTORS	2 0.6%	
6 DETECTORS	0 0.0%	
7 DETECTORS	0 0.0%	
8 DETECTORS	0 0.0%	
TOTAL	319	
NET 2-SEC RECORDS WITH SORTS	989	
2-SEC PERIODS WITH NO SORTS	18,191	
AVG TIME BETWEEN 2-SEC SORTS	38.8 sec	

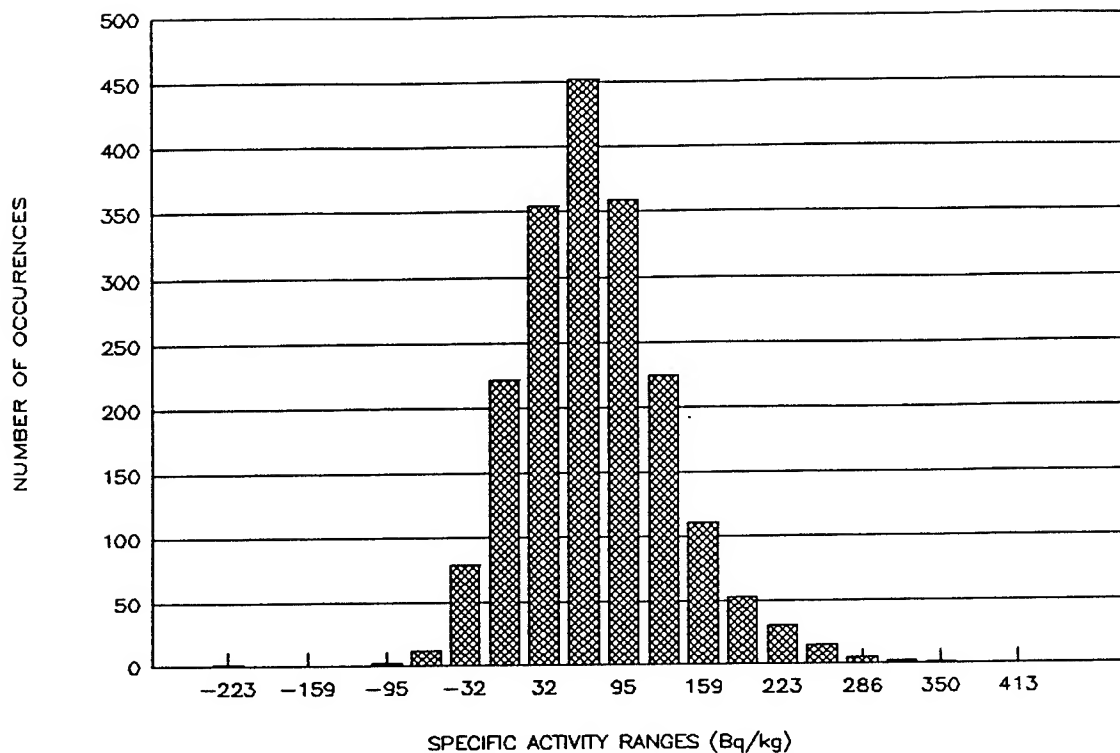
1-GATE SORTS	657	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	16	2.4%	-14000	1	-223	4000	68	5.2%
2	47	7.2%	-12000	0	-191	8000	619	47.3%
3	93	14.2%	-10000	0	-159	12000	225	17.2%
4	118	18.0%	-8000	0	-127	16000	110	8.4%
5	140	21.3%	-6000	2	-95	20000	70	5.4%
6	109	16.6%	-4000	12	-64	24000	37	2.8%
7	95	14.5%	-2000	79	-32	28000	31	2.4%
8	39	5.9%	0	221	0	32000	26	2.0%
TOTAL	657		2000	354	32	36000	13	1.0%
			4000	452	64	40000	14	1.1%
2-GATE SORTS	651	6000	359	95		44000	10	0.8%
DETECTR	SORTS	FREQ%	8000	224	127	48000	8	0.6%
8			10000	111	159	52000	9	0.7%
9	25	3.8%	12000	53	191	56000	7	0.5%
10	66	10.1%	14000	30	223	60000	5	0.4%
11	120	18.4%	16000	15	254	64000	4	0.3%
12	131	20.1%	18000	5	286	68000	6	0.5%
13	129	19.8%	20000	2	318	72000	3	0.2%
14	95	14.6%	22000	1	350	76000	5	0.4%
15	85	13.1%	24000	0	382	80000	1	0.1%
TOTAL	651		26000	0	413	84000	3	0.2%
			>28000	0	0	>84000	34	2.6%
			TOTAL	1921		TOTAL	1308	
SUMMARY TOTALS								
HOT PARTICLE EVENTS	1340					SORTS BY ONE GATE ONLY	657	
MULTIPARTICLE EVENTS	360					SORTS BY TWO GATES	651	
DISTRIBUTED EVENTS	0							

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
2.00 Empty belt
3.00 Test (No process soil)

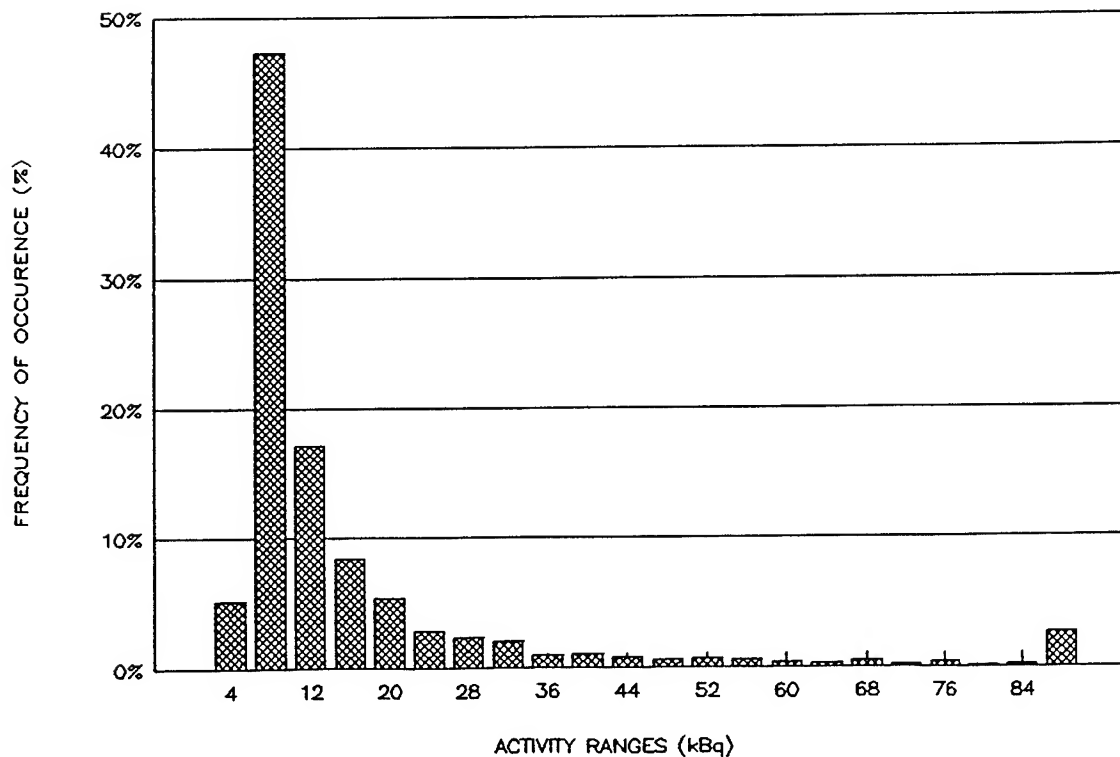
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 04-May-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 04-May-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 04-May-93

AVERAGE BACKGROUND COUNT RATE

0.88 ± 0.04 c/sec

SORTER SOIL DENSITY

1.35 tons/m³

GROUND SOIL DENSITY

1.65 tons/m³

MASS TOTAL

CONTAMINATED

CLEAN

1.24 tons

118.7 tons

MAXIMUM/SORT

7.1 kg

62.9 kg

MINIMUM/SORT

0.8 kg

55.8 kg

WEIGHT RECOVERY OR VOLUME RECOVERY

99.0%

EQUIVALENT SOIL-IN-GROUND

0.98 yd³

94.1 yd³

95.1 yd³/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL

21,085 kBq

MAXIMUM/SORT

982 kBq

MINIMUM/SORT

2.7 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

6,973 kBq

6,091 kBq

MAXIMUM/SORT

576 kBq

21 kBq

MINIMUM/SORT

0 Bq

-7 kBq

SPECIFIC ACTIVITY

5,614 Bq/kg

51 Bq/kg

WORK HISTORY

WORK DAY START

06:00 AM

WORK DAY END

05:30 PM

PLANT START-UP

06:00 AM

PLANT SHUT-DOWN

05:30 PM

START SOIL PROCESSING

06:22 AM

END SOIL PROCESSING

04:57 PM

LUNCH START

11:30 AM

LUNCH PERIOD

0.0 hr

WORK HOURS

11.5 hr

AVAILABLE HOURS

11.5 hr

ACTUAL PROCESS HOURS (total 20-sec records)

10.59 hr

DOWN-TIME

0.91 hr

TOTAL SYSTEM PAUSE

0.00 hr

NONAVAILABLE HOURS

0.0 hr

START-UP

0.37 hr

SHUT-DOWN

0.54 hr

PLANT PERFORMANCE

92.1%

PRODUCTIVITY

92.1%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)

3,064

NONPROCESS RECORDS (Test, calibration, etc)

14

20-SEC PROCESS RECORDS

1,907

TOTAL SORT

0 MD>0 & MND=0

NO SORT

1,199 AD=0 & MD=0 & MND>0

SOME SORT

708 AD>0&0<MD<MNDmax&MND<MNDmax

UNEXPLAINED RECORDS

0

0<AD<1kBq & MD>0

0

UNEXPLAIN

PAUSE

AD=0 & MD

0

TIME

TIME

AD<0 & MD

0

None

None

ACT_P <5 kBq

186

16.1%

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 19,070
 2-SEC RECORDS WITH SORTS 1,157 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 240 84.2%
 3 DETECTORS 35 12.3%
 4 DETECTORS 7 2.5%
 5 DETECTORS 3 1.1%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 285
 NET 2-SEC RECORDS WITH SORTS 872
 2-SEC PERIODS WITH NO SORTS 18,198
 AVG TIME BETWEEN 2-SEC SORTS 43.7 sec

1-GATE SORTS	601	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)
1	20	3.3%	-14000	5	-223	4000	39 3.4%
2	81	13.5%	-12000	5	-191	8000	536 46.3%
3	128	21.3%	-10000	1	-159	12000	213 18.4%
4	111	18.5%	-8000	0	-127	16000	96 8.3%
5	119	19.8%	-6000	6	-95	20000	55 4.8%
6	93	15.5%	-4000	29	-64	24000	44 3.8%
7	38	6.3%	-2000	103	-32	28000	34 2.9%
8	11	1.8%	0	257	0	32000	23 2.0%
TOTAL	601		2000	382	32	36000	8 0.7%
			4000	424	64	40000	17 1.5%
2-GATE SORTS	556	6000	311	95	44000	12 1.0%	44
DETECTR	SORTS	FREQ%	8000	194	127	48000	12 1.0%
8			10000	97	159	52000	6 0.5%
9	39	7.0%	12000	49	191	56000	4 0.3%
10	86	15.5%	14000	29	223	60000	5 0.4%
11	121	21.8%	16000	14	254	64000	5 0.4%
12	112	20.1%	18000	10	286	68000	5 0.4%
13	112	20.1%	20000	2	318	72000	6 0.5%
14	61	11.0%	22000	3	350	76000	3 0.3%
15	25	4.5%	24000	0	382	80000	8 0.7%
TOTAL	556		26000	0	413	84000	4 0.3%
			>28000	0	0	>84000	22 1.9%
			TOTAL	1921		TOTAL	1157

SUMMARY TOTALS

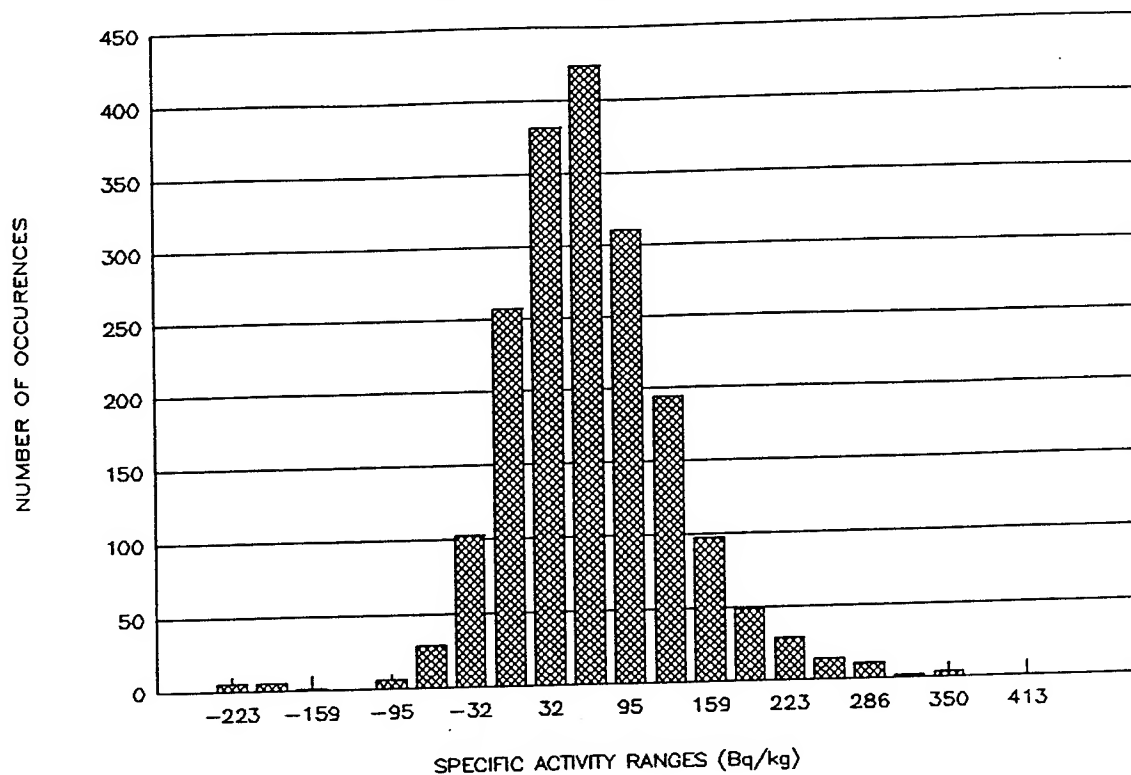
HOT PARTICLE EVENTS	1174	SORTS BY ONE GATE ONLY	601
MULTIPARTICLE EVENTS	392	SORTS BY TWO GATES	556
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

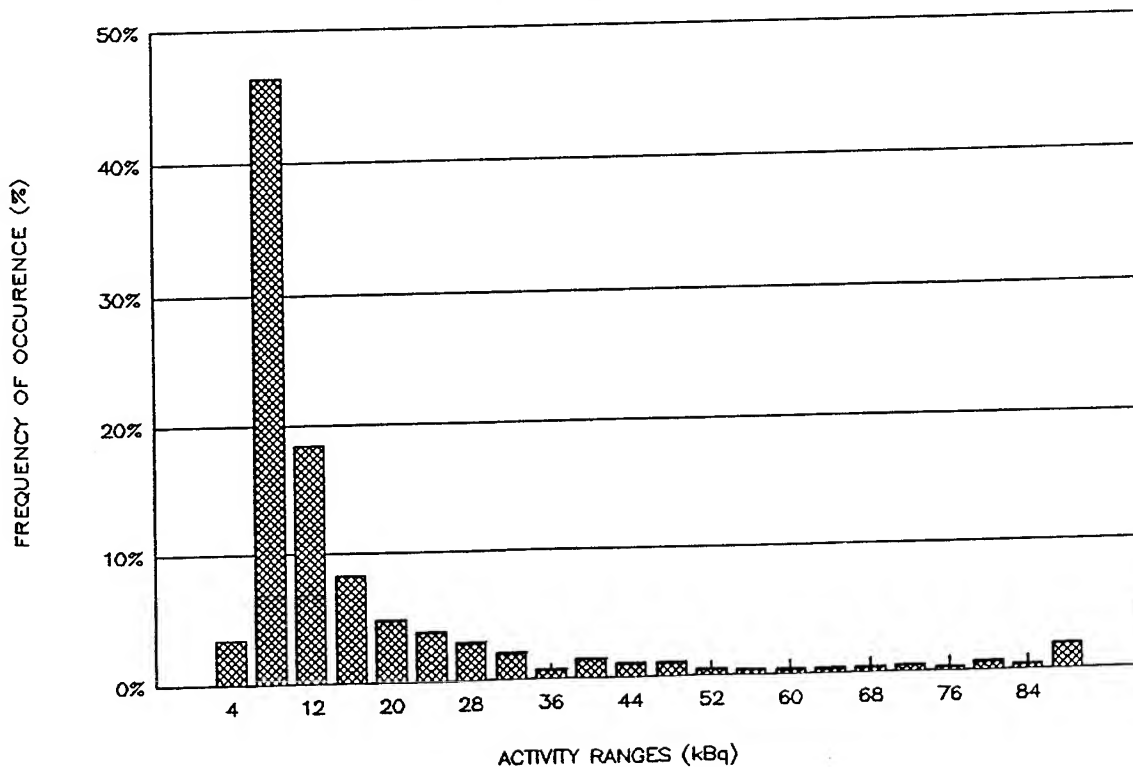
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 04-May-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 04-May-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 03-May-93

AVERAGE BACKGROUND COUNT RATE 0.81 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.35 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	1.89 tons	117.9 tons
MAXIMUM/SORT	8.6 kg	62.9 kg
MINIMUM/SORT	0.8 kg	54.2 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		98.4%
EQUIVALENT SOIL-IN-GROUND	1.50 yd ³	93.4 yd ³ 94.9 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	34,011 kBq
MAXIMUM/SORT	2,585 kBq
MINIMUM/SORT	2.8 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY		
MAXIMUM/SORT	11,188 kBq	10,352 kBq
MINIMUM/SORT	1528 kBq	18 kBq
SPECIFIC ACTIVITY	0 Bq	-5 kBq
	5,910 Bq/kg	88 Bq/kg

WORK HISTORY

WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:27 AM	END SOIL PROCESSING	05:02 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.5 hr
AVAILABLE HOURS	11.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.58 hr
DOWN-TIME	0.92 hr
TOTAL SYSTEM PAUSE	0.01 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.45 hr
SHUT-DOWN	0.46 hr
PLANT PERFORMANCE	92.0%
PRODUCTIVITY	92.0%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 3,675
 NONPROCESS RECORDS (Test, calibration, etc) 3

20-SEC PROCESS RECORDS

TOTAL SORT	0 MD>0 & MND=0
NO SORT	918 AD=0 & MD=0 & MND>0
SOME SORT	986 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	8
AD=0 & MD	0
AD<0 & MD	0
ACT_P <5 kBq	344 19.4%

UNEXPLAIN	PAUSE
TIME	TIME
09:00:50	09:23
11:11:30	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	19,040	11:12:50
2-SEC RECORDS WITH SORTS	1,771 (ACT_P >0 kBq)	12:07:50
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		12:10:50
2 DETECTORS	381 83.6%	13:03:30
3 DETECTORS	59 12.9%	13:47:30
4 DETECTORS	13 2.9%	15:31:30
5 DETECTORS	3 0.7%	
6 DETECTORS	0 0.0%	
7 DETECTORS	0 0.0%	
8 DETECTORS	0 0.0%	
TOTAL	456	
NET 2-SEC RECORDS WITH SORTS	1,315	
2-SEC PERIODS WITH NO SORTS	17,725	
AVG TIME BETWEEN 2-SEC SORTS	29.0 sec	

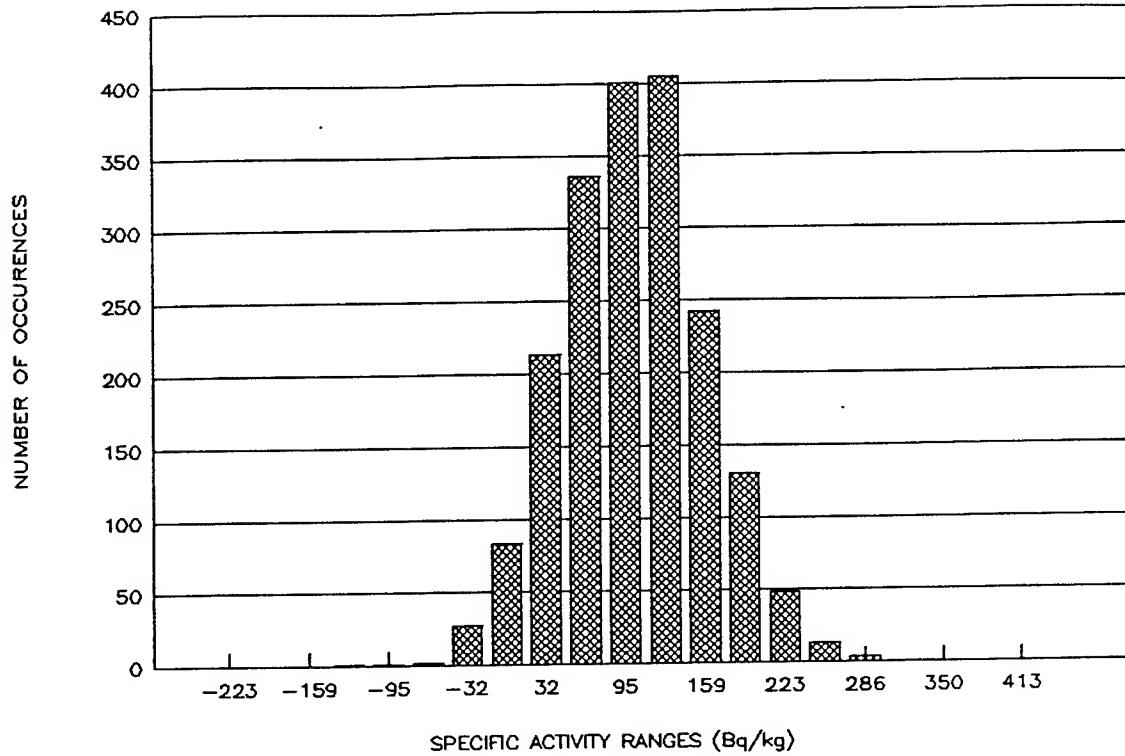
1-GATE SORTS	881	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	28	3.2%	-14000	0	-223	4000	100	5.6%
2	64	7.3%	-12000	0	-191	8000	808	45.6%
3	137	15.6%	-10000	0	-159	12000	305	17.2%
4	163	18.5%	-8000	1	-127	16000	157	8.9%
5	178	20.2%	-6000	1	-95	20000	96	5.4%
6	159	18.0%	-4000	2	-64	24000	53	3.0%
7	121	13.7%	-2000	27	-32	28000	43	2.4%
8	31	3.5%	0	83	0	32000	46	2.6%
TOTAL	881		2000	213	32	36000	24	1.4%
			4000	336	64	40000	20	1.1%
			6000	401	95	44000	19	1.1%
2-GATE SORTS	890		8000	406	127	48000	12	0.7%
DETECTR	SORTS	FREQ%	10000	242	159	52000	8	0.5%
8			12000	131	191	56000	5	0.3%
9	41	4.6%	14000	48	223	60000	2	0.1%
10	85	9.6%	16000	13	254	64000	6	0.3%
11	160	18.0%	18000	3	286	68000	4	0.2%
12	167	18.8%	20000	0	318	72000	6	0.3%
13	192	21.6%	22000	0	350	76000	7	0.4%
14	151	17.0%	24000	0	382	80000	3	0.2%
15	94	10.6%	26000	0	413	84000	4	0.2%
TOTAL	890		>28000	0	0	>84000	43	2.4%
			TOTAL	1907		TOTAL	1771	
SUMMARY TOTALS								
HOT PARTICLE EVENTS	1829				SORTS BY ONE GATE ONLY	881		
MULTIPARTICLE EVENTS	561				SORTS BY TWO GATES	890		
DISTRIBUTED EVENTS	0							

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

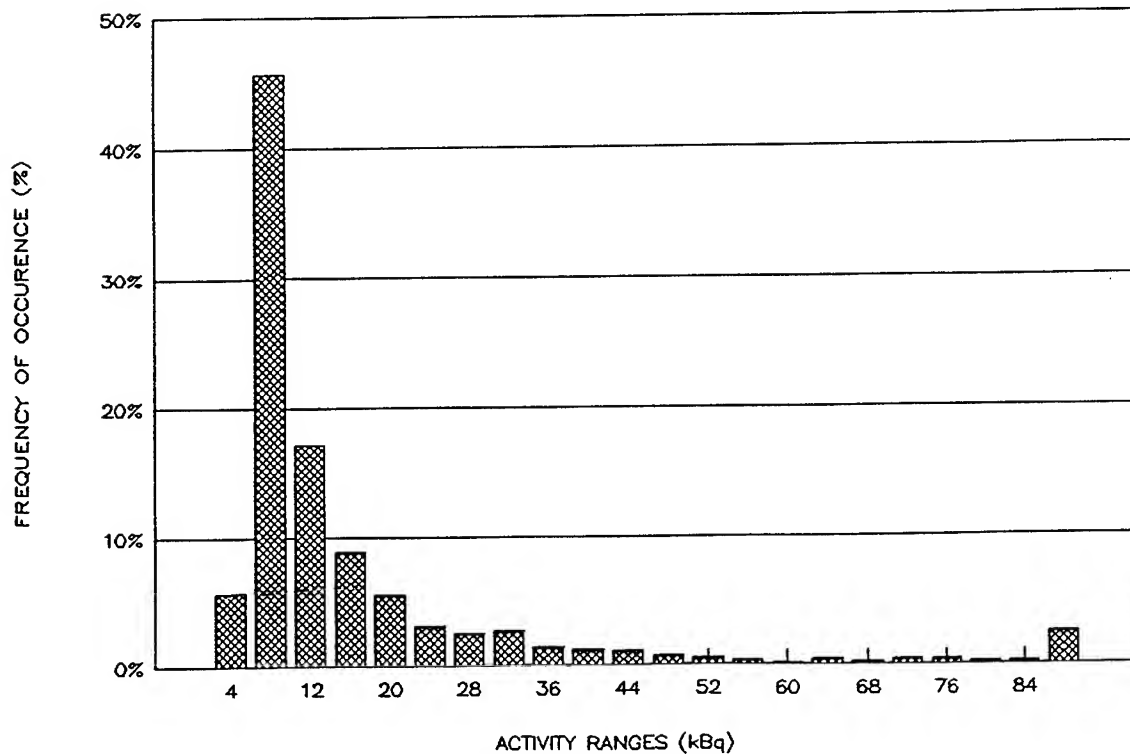
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 03-May-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 03-May-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 03-May-93

AVERAGE BACKGROUND COUNT RATE	0.89 ± 0.02 c/sec		
SORTER SOIL DENSITY	1.35 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		1.81 tons	117.8 tons
MAXIMUM/SORT		8.6 kg	62.9 kg
MINIMUM/SORT		0.8 kg	54.2 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			98.5%
EQUIVALENT SOIL-IN-GROUND	1.44 yd ³	93.4 yd ³	94.8 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	29,519 kBq		
MAXIMUM/SORT	714 kBq		
MINIMUM/SORT	2.6 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	9,995 kBq	9,305 kBq	
MAXIMUM/SORT	438 kBq	18 kBq	
MINIMUM/SORT	0 Bq	-7 kBq	
SPECIFIC ACTIVITY	5,509 Bq/kg	79 Bq/kg	
WORK HISTORY			
WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:28 AM	END SOIL PROCESSING	05:01 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS		11.5 hr	
AVAILABLE HOURS		11.5 hr	
ACTUAL PROCESS HOURS (total 20-sec records)		10.57 hr	
DOWN-TIME		0.93 hr	
TOTAL SYSTEM PAUSE		0.00 hr	
NONAVAILABLE HOURS		0.0 hr	
START-UP		0.47 hr	
SHUT-DOWN		0.47 hr	
PLANT PERFORMANCE		91.9%	
PRODUCTIVITY		91.9%	

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	3,616		
NONPROCESS RECORDS (Test, calibration, etc)	6		
20-SEC PROCESS RECORDS	1,902		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	954 AD=0 & MD=0 & MND>0		
SOME SORT	948 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	6	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	07:24:20	None
ACT_P <5 kBq	267 15.6%	07:36:40	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	19,020	10:04:00
2-SEC RECORDS WITH SORTS	1,714 (ACT_P >0 kBq)	15:13:20
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		16:11:20
2 DETECTORS	351 84.0%	16:59:00
3 DETECTORS	58 13.9%	
4 DETECTORS	7 1.7%	
5 DETECTORS	2 0.5%	
6 DETECTORS	0 0.0%	
7 DETECTORS	0 0.0%	
8 DETECTORS	0 0.0%	
TOTAL	418	
NET 2-SEC RECORDS WITH SORTS	1,296	
2-SEC PERIODS WITH NO SORTS	17,724	
AVG TIME BETWEEN 2-SEC SORTS	29.4 sec	

1-GATE SORTS	898	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	34	3.8%	-14000	2	-223	4000	90	5.3%
2	120	13.4%	-12000	1	-191	8000	788	46.0%
3	205	22.8%	-10000	0	-159	12000	284	16.6%
4	186	20.7%	-8000	0	-127	16000	155	9.0%
5	159	17.7%	-6000	4	-95	20000	96	5.6%
6	109	12.1%	-4000	11	-64	24000	61	3.6%
7	68	7.6%	-2000	45	-32	28000	40	2.3%
8	17	1.9%	0	115	0	32000	31	1.8%
TOTAL	898		2000	240	32	36000	19	1.1%
			4000	354	64	40000	14	0.8%
2-GATE SORTS	816		6000	380	95	44000	11	0.6%
DETECTR	SORTS	FREQ%	8000	376	127	48000	16	0.9%
8			10000	232	159	52000	11	0.6%
9	51	6.3%	12000	102	191	56000	12	0.7%
10	121	14.8%	14000	31	223	60000	7	0.4%
11	199	24.4%	16000	12	254	64000	9	0.5%
12	190	23.3%	18000	2	286	68000	7	0.4%
13	123	15.1%	20000	1	318	72000	4	0.2%
14	91	11.2%	22000	0	350	76000	3	0.2%
15	41	5.0%	24000	0	382	80000	5	0.3%
TOTAL	816		26000	0	413	84000	6	0.4%
			>28000	0	0	>84000	45	2.6%
			TOTAL	1908		TOTAL	1714	

SUMMARY TOTALS

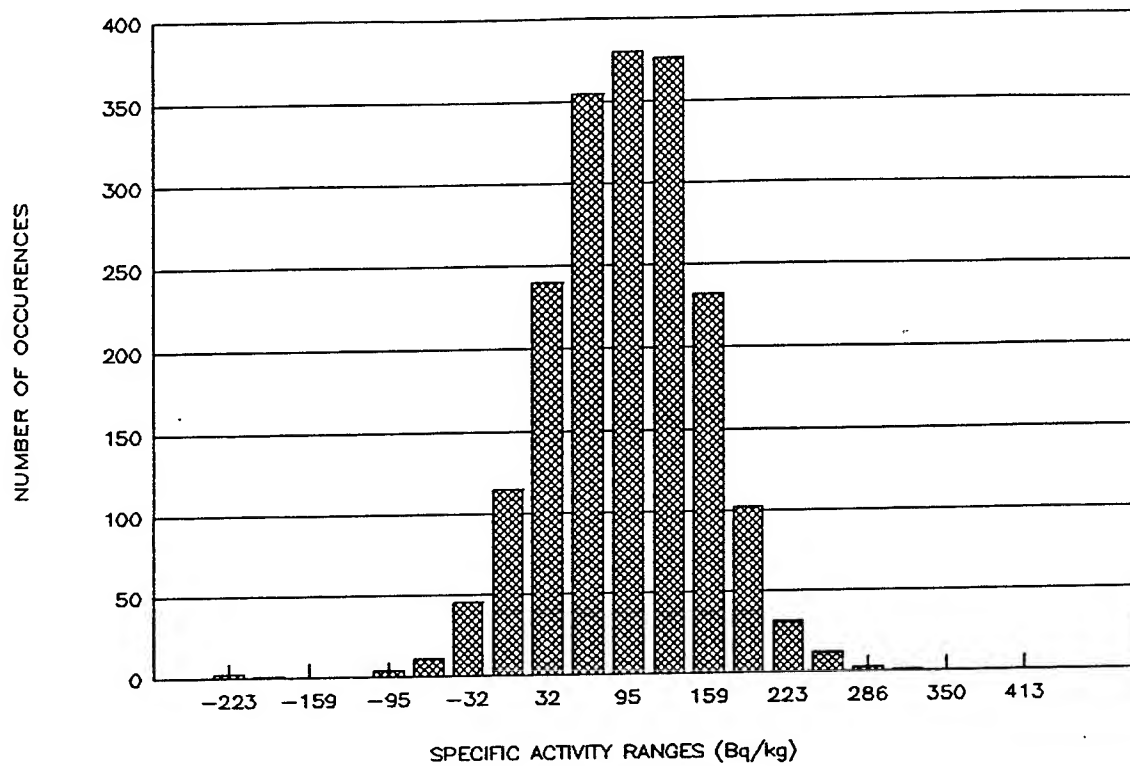
HOT PARTICLE EVENTS	1727	SORTS BY ONE GATE ONLY	898
MULTIPARTICLE EVENTS	563	SORTS BY TWO GATES	816
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

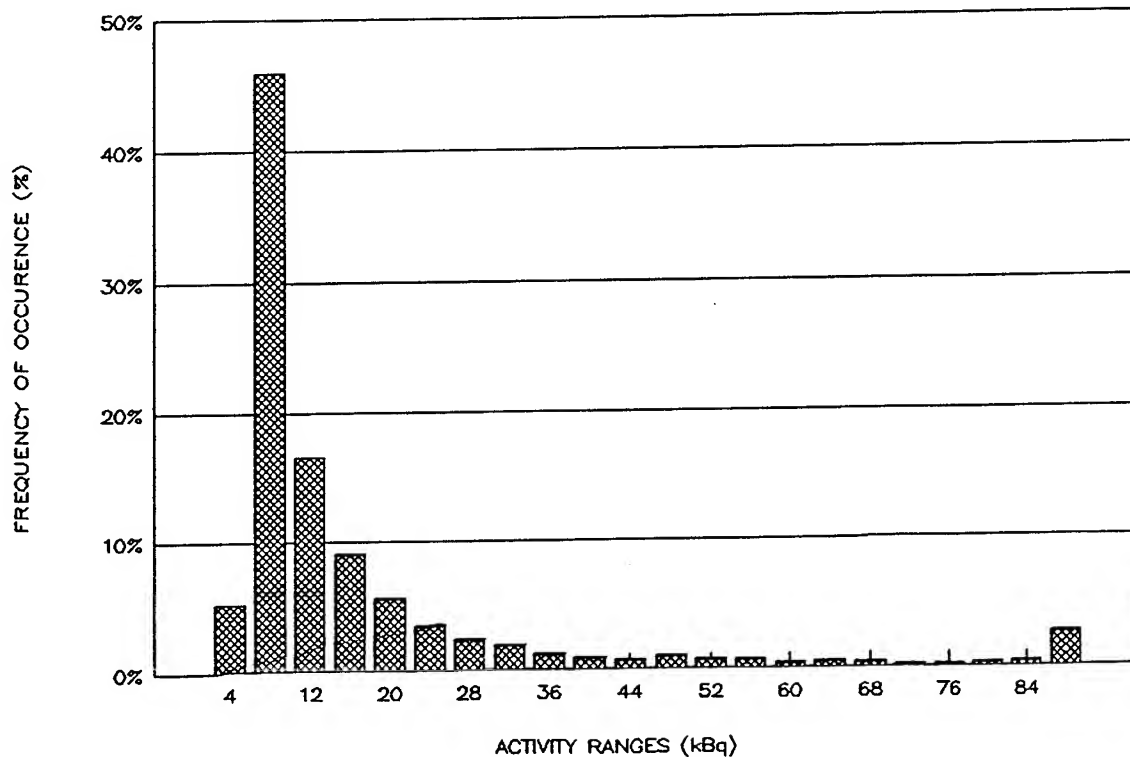
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 03-May-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 03-May-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 01-May-93

AVERAGE BACKGROUND COUNT RATE	0.82 ± 0.04 c/sec		
SORTER SOIL DENSITY	1.35 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	1.16 tons	80.5 tons	
MAXIMUM/SORT	6.3 kg	62.9 kg	
MINIMUM/SORT	0.8 kg	56.6 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			98.6%
EQUIVALENT SOIL-IN-GROUND	0.92 yd ³	63.8 yd ³	64.8 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	25,922 kBq		
MAXIMUM/SORT	1,459 kBq		
MINIMUM/SORT	2.6 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	8,168 kBq	6,627 kBq	
MAXIMUM/SORT	795 kBq	21 kBq	
MINIMUM/SORT	0 Bq	-6 kBq	
SPECIFIC ACTIVITY	7,025 Bq/kg	82 Bq/kg	
WORK HISTORY			
WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	01:45 PM
START SOIL PROCESSING	06:24 AM	END SOIL PROCESSING	01:37 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS	11.5 hr		
AVAILABLE HOURS	7.7 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	7.22 hr		
DOWN-TIME	0.53 hr		
TOTAL SYSTEM PAUSE	0.00 hr		
NONAVAILABLE HOURS	3.8 hr		
START-UP	0.41 hr		
SHUT-DOWN	0.13 hr		
PLANT PERFORMANCE	93.1%		
PRODUCTIVITY	62.8%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,430		
NONPROCESS RECORDS (Test, calibration, etc)	9		
20-SEC PROCESS RECORDS	1,299		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	670 AD=0 & MD=0 & MND>0		
SOME SORT	629 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	2	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	06:38:44	None
ACT_P <5 kBq	232 20.5%	12:21:24	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 12,990
 2-SEC RECORDS WITH SORTS 1,131 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 254 85.8%
 3 DETECTORS 39 13.2%
 4 DETECTORS 3 1.0%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 296
 NET 2-SEC RECORDS WITH SORTS 835
 2-SEC PERIODS WITH NO SORTS 12,155
 AVG TIME BETWEEN 2-SEC SORTS 31.1 sec

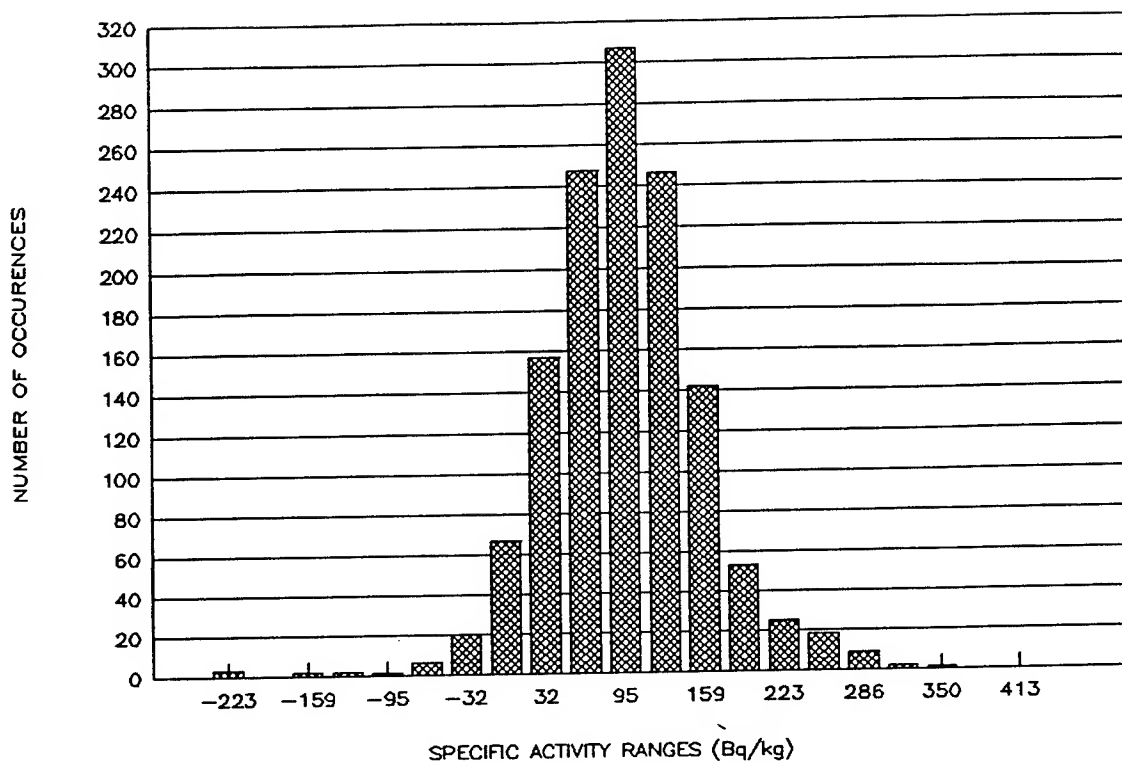
1-GATE SORTS		568	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT FREQ%		ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	24	4.2%	-14000	3	-223	4000	67	5.9%	4
2	46	8.1%	-12000	0	-191	8000	519	45.9%	8
3	91	16.0%	-10000	2	-159	12000	166	14.7%	12
4	98	17.3%	-8000	2	-127	16000	111	9.8%	16
5	119	21.0%	-6000	1	-95	20000	58	5.1%	20
6	72	12.7%	-4000	6	-64	24000	31	2.7%	24
7	90	15.8%	-2000	20	-32	28000	24	2.1%	28
8	28	4.9%	0	67	0	32000	21	1.9%	32
TOTAL	568		2000	157	32	36000	14	1.2%	36
			4000	247	64	40000	18	1.6%	40
			6000	307	95	44000	11	1.0%	44
2-GATE SORTS		563	8000	246	127	48000	4	0.4%	48
DETECTR	SORTS	FREQ%	10000	142	159	52000	9	0.8%	52
8			12000	53	191	56000	5	0.4%	56
9	32	5.7%	14000	25	223	60000	7	0.6%	60
10	72	12.8%	16000	18	254	64000	2	0.2%	64
11	86	15.3%	18000	9	286	68000	7	0.6%	68
12	107	19.0%	20000	2	318	72000	2	0.2%	72
13	108	19.2%	22000	1	350	76000	10	0.9%	76
14	84	14.9%	24000	0	382	80000	5	0.4%	80
15	74	13.1%	26000	0	413	84000	1	0.1%	84
TOTAL	563		>28000	0	0	>84000	39	3.4%	>84
			TOTAL	1308		TOTAL	1131		
SUMMARY TOTALS									
HOT PARTICLE EVENTS			1146	SORTS BY ONE GATE ONLY			568		
MULTIPARTICLE EVENTS			320	SORTS BY TWO GATES			563		
DISTRIBUTED EVENTS			0						

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

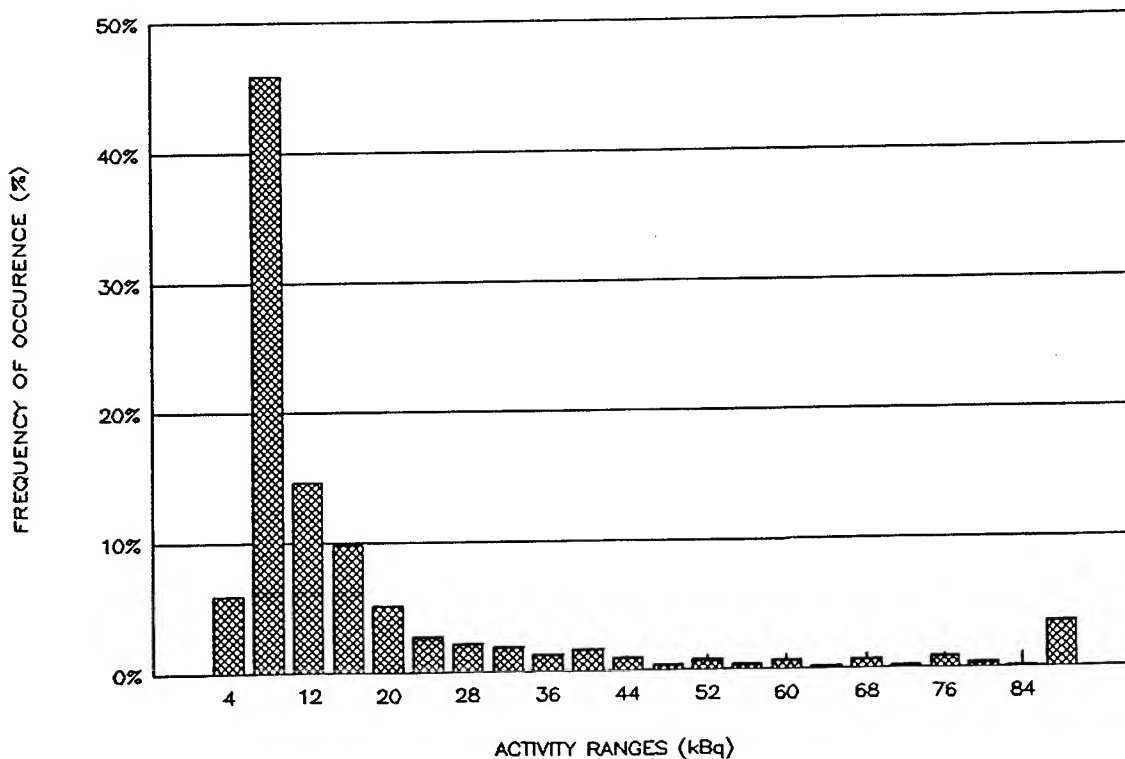
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 01-May-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 01-May-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 01-May-93

AVERAGE BACKGROUND COUNT RATE	0.89 ± 0.03 c/sec		
SORTER SOIL DENSITY	1.35 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		1.19 tons	80.7 tons
MAXIMUM/SORT		7.1 kg	62.9 kg
MINIMUM/SORT		0.8 kg	55.8 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			98.5%
EQUIVALENT SOIL-IN-GROUND	0.94 yd ³	64.0 yd ³	64.9 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	17,388 kBq		
MAXIMUM/SORT	499 kBq		
MINIMUM/SORT	3.0 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	5,834 kBq	5,698 kBq	
MAXIMUM/SORT	281 kBq	18 kBq	
MINIMUM/SORT	0 Bq	-8 kBq	
SPECIFIC ACTIVITY	4,913 Bq/kg	71 Bq/kg	
WORK HISTORY			
WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	01:45 PM
START SOIL PROCESSING	06:24 AM	END SOIL PROCESSING	01:38 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS	11.5 hr		
AVAILABLE HOURS	7.7 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	7.23 hr		
DOWN-TIME	0.52 hr		
TOTAL SYSTEM PAUSE	0.00 hr		
NONAVAILABLE HOURS	3.8 hr		
START-UP	0.41 hr		
SHUT-DOWN	0.11 hr		
PLANT PERFORMANCE	93.3%		
PRODUCTIVITY	62.9%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,424		
NONPROCESS RECORDS (Test, calibration, etc)	6		
20-SEC PROCESS RECORDS	1,302		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	671 AD=0 & MD=0 & MND>0		
SOME SORT	631 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	3	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	08:08:04	None
ACT_P <5 kBq	197 17.6%	11:39:44	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 13,020 13:36:24
 2-SEC RECORDS WITH SORTS 1,122 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 227 87.0%
 3 DETECTORS 32 12.3%
 4 DETECTORS 2 0.8%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 261
 NET 2-SEC RECORDS WITH SORTS 861
 2-SEC PERIODS WITH NO SORTS 12,159
 AVG TIME BETWEEN 2-SEC SORTS 30.2 sec

1-GATE SORTS	588	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%	ACT_P	
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	29	4.9%	-14000	1	-223	4000	59	5.3%
2	105	17.9%	-12000	0	-191	8000	510	45.5%
3	93	15.8%	-10000	1	-159	12000	213	19.0%
4	98	16.7%	-8000	1	-127	16000	97	8.6%
5	111	18.9%	-6000	4	-95	20000	52	4.6%
6	77	13.1%	-4000	9	-64	24000	44	3.9%
7	59	10.0%	-2000	27	-32	28000	23	2.0%
8	16	2.7%	0	90	0	32000	26	2.3%
TOTAL	588		2000	205	32	36000	9	0.8%
			4000	301	64	40000	15	1.3%
			6000	276	95	44000	8	0.7%
2-GATE SORTS	534		8000	195	127	48000	9	0.8%
DETECTR	SORTS	FREQ%				52000	5	0.4%
8			10000	119	159	56000	4	0.4%
9	55	10.3%	12000	41	191	60000	2	0.2%
10	89	16.7%	14000	21	223	64000	7	0.6%
11	96	18.0%	16000	13	254	68000	1	0.1%
12	99	18.5%	18000	3	286	72000	4	0.4%
13	87	16.3%	20000	1	318	76000	2	0.2%
14	67	12.5%	22000	0	350	80000	3	0.3%
15	41	7.7%	24000	0	382	84000	0	0.0%
TOTAL	534		26000	0	413			
			>28000	0	0	>84000	29	2.6%
			TOTAL	1308		TOTAL	1122	

SUMMARY TOTALS

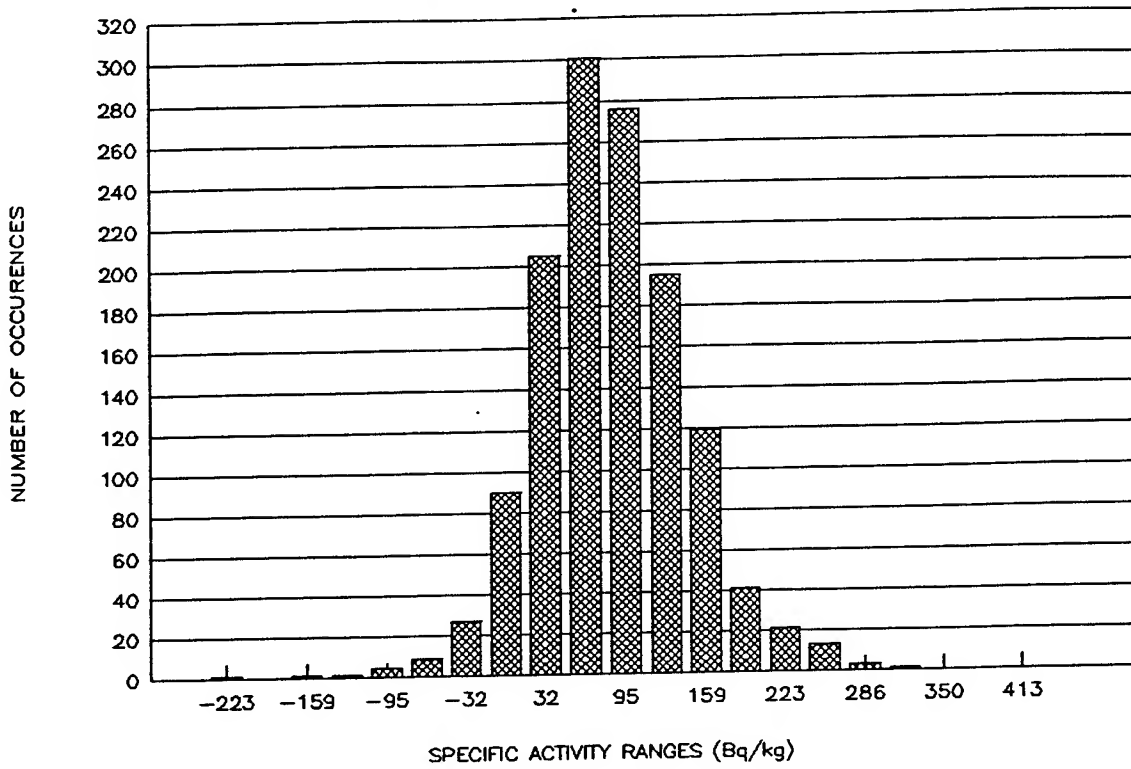
HOT PARTICLE EVENTS	1140	SORTS BY ONE GATE ONLY	588
MULTIPARTICLE EVENTS	358	SORTS BY TWO GATES	534
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 01-May-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 30-Apr-93

AVERAGE BACKGROUND COUNT RATE 0.81 ± 0.04 c/sec

SORTER SOIL DENSITY 1.35 tons/m³

GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	1.36 tons	116.4 tons
MAXIMUM/SORT	8.6 kg	62.9 kg
MINIMUM/SORT	0.8 kg	54.2 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		98.8%
EQUIVALENT SOIL-IN-GROUND	1.08 yd ³	92.3 yd ³ 93.3 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	31,331 kBq
MAXIMUM/SORT	3,867 kBq
MINIMUM/SORT	2.3 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

	9,465 kBq	7,392 kBq
MAXIMUM/SORT	2236 kBq	16 kBq
MINIMUM/SORT	0 Bq	-6 kBq
SPECIFIC ACTIVITY	6,952 Bq/kg	64 Bq/kg

WORK HISTORY		WORK DAY END	05:30 PM
WORK DAY START	06:00 AM	PLANT SHUT-DOWN	05:30 PM
PLANT START-UP	06:00 AM	END SOIL PROCESSING	04:56 PM
START SOIL PROCESSING	06:32 AM	LUNCH PERIOD	0.0 hr
LUNCH START	11:30 AM		

WORK HOURS	11.5 hr
AVAILABLE HOURS	11.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.40 hr
DOWN-TIME	1.10 hr
TOTAL SYSTEM PAUSE	0.00 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.54 hr
SHUT-DOWN	0.56 hr
PLANT PERFORMANCE	90.4%
PRODUCTIVITY	90.4%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 3,154

NONPROCESS RECORDS (Test, calibration, etc) 5

20-SEC PROCESS RECORDS	1,872
TOTAL SORT	0 MD>0 & MND=0
NO SORT	1,114 AD=0 & MD=0 & MND>0
SOME SORT	757 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	1
0<AD<1kBq & MD>0	1
AD=0 & MD	1
AD<0 & MD	0
ACT_P <5 kBq	242 18.9%

UNEXPLAIN	PAUSE
TIME	TIME
12:20:41	None
16:05:41	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 18,720
 2-SEC RECORDS WITH SORTS 1,282 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 280 84.3%
 3 DETECTORS 41 12.3%
 4 DETECTORS 9 2.7%
 5 DETECTORS 2 0.6%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 332
 NET 2-SEC RECORDS WITH SORTS 950
 2-SEC PERIODS WITH NO SORTS 17,770
 AVG TIME BETWEEN 2-SEC SORTS 39.4 sec

1-GATE SORTS	641	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P	
DETECTR	SORTS	FREQ%	(#)	(Bq/kg)	(Bq)	(#)		(kBq)	
1	9	1.4%	-14000	0	-223	4000	91	7.1%	4
2	42	6.6%	-12000	2	-191	8000	541	42.2%	8
3	73	11.4%	-10000	0	-159	12000	236	18.4%	12
4	115	17.9%	-8000	0	-127	16000	112	8.7%	16
5	137	21.4%	-6000	0	-95	20000	55	4.3%	20
6	109	17.0%	-4000	18	-64	24000	36	2.8%	24
7	118	18.4%	-2000	51	-32	28000	34	2.7%	28
8	38	5.9%	0	161	0	32000	28	2.2%	32
TOTAL	641		2000	311	32	36000	16	1.2%	36
			4000	430	64	40000	13	1.0%	40
2-GATE SORTS	641	6000	406	95	44000	13	1.0%	44	
DETECTR	SORTS	FREQ%	8000	279	127	48000	8	0.6%	48
8			10000	138	159	52000	10	0.8%	52
9	24	3.7%	12000	62	191	56000	7	0.5%	56
10	58	9.0%	14000	14	223	60000	5	0.4%	60
11	92	14.4%	16000	5	254	64000	5	0.4%	64
12	132	20.6%	18000	0	286	68000	12	0.9%	68
13	142	22.2%	20000	0	318	72000	8	0.6%	72
14	97	15.1%	22000	0	350	76000	2	0.2%	76
15	96	15.0%	24000	0	382	80000	1	0.1%	80
TOTAL	641		26000	0	413	84000	4	0.3%	84
			>28000	0	0	>84000	45	3.5%	>84
			TOTAL	1877		TOTAL	1282		

SUMMARY TOTALS

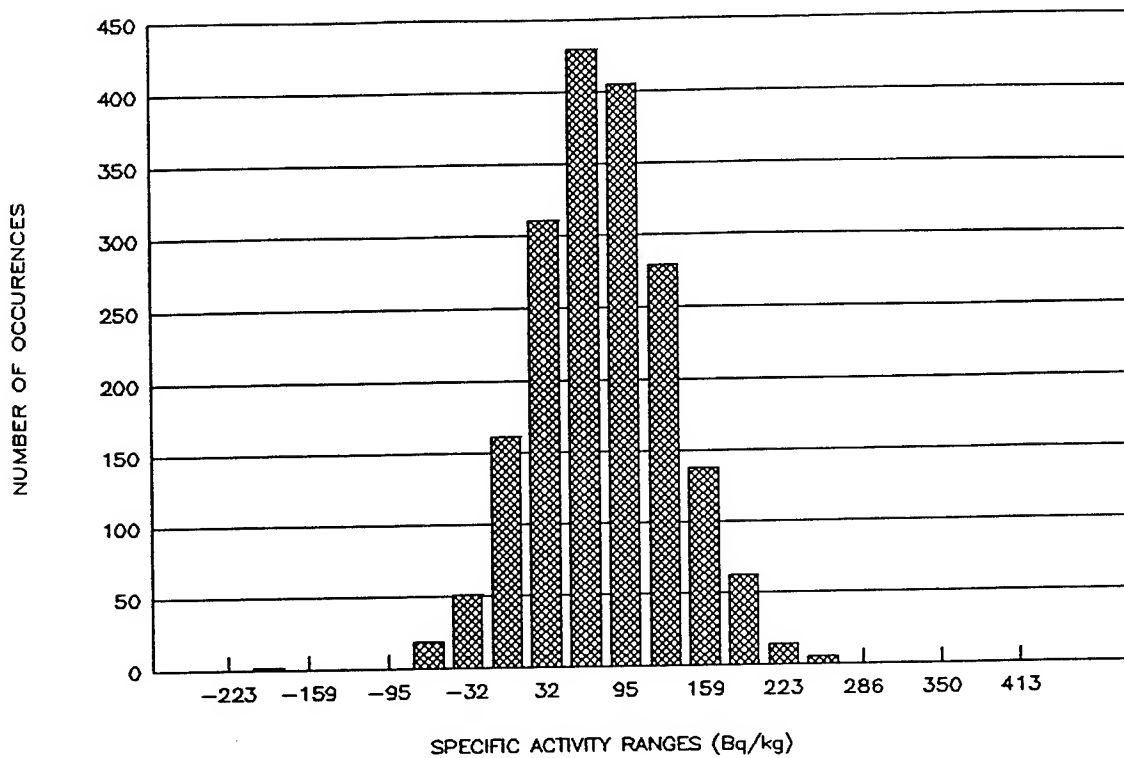
HOT PARTICLE EVENTS	1308	SORTS BY ONE GATE ONLY	641
MULTIPARTICLE EVENTS	408	SORTS BY TWO GATES	641
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

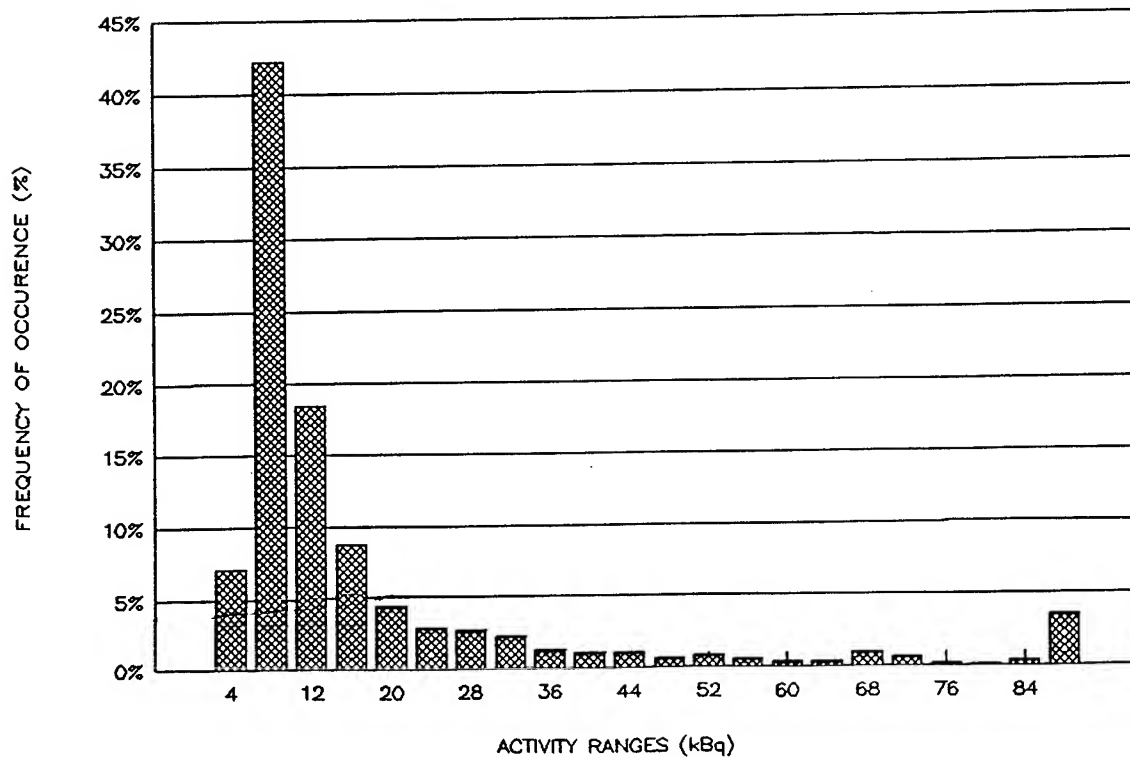
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 30-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 30-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 30-Apr-93

AVERAGE BACKGROUND COUNT RATE	0.86 ± 0.05 c/sec		
SORTER SOIL DENSITY	1.35 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	1.26 tons	116.4 tons	
MAXIMUM/SORT	8.6 kg	62.9 kg	
MINIMUM/SORT	0.8 kg	54.2 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			98.9%
EQUIVALENT SOIL-IN-GROUND	1.00 yd ³	92.3 yd ³	93.3 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	36,462 kBq		
MAXIMUM/SORT	4,367 kBq		
MINIMUM/SORT	3.0 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	11,266 kBq	6,140 kBq	
MAXIMUM/SORT	2555 kBq	16 kBq	
MINIMUM/SORT	0 Bq	-19 kBq	
SPECIFIC ACTIVITY	8,952 Bq/kg	53 Bq/kg	
WORK HISTORY			
WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:32 AM	END SOIL PROCESSING	04:56 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS	11.5 hr		
AVAILABLE HOURS	11.5 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	10.39 hr		
DOWN-TIME	1.11 hr		
TOTAL SYSTEM PAUSE	0.00 hr		
NONAVAILABLE HOURS	0.0 hr		
START-UP	0.54 hr		
SHUT-DOWN	0.56 hr		
PLANT PERFORMANCE	90.4%		
PRODUCTIVITY	90.4%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	3,039		
NONPROCESS RECORDS (Test, calibration, etc)	6		
20-SEC PROCESS RECORDS	1,871		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	1,114 AD=0 & MD=0 & MND>0		
SOME SORT	757 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	3	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	10:05:22	None
ACT_P <5 kBq	191 16.4%	10:35:42	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 18,710 15:16:02
 2-SEC RECORDS WITH SORTS 1,168 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 218 85.8%
 3 DETECTORS 29 11.4%
 4 DETECTORS 5 2.0%
 5 DETECTORS 2 0.8%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 254
 NET 2-SEC RECORDS WITH SORTS 914
 2-SEC PERIODS WITH NO SORTS 17,796
 AVG TIME BETWEEN 2-SEC SORTS 40.9 sec

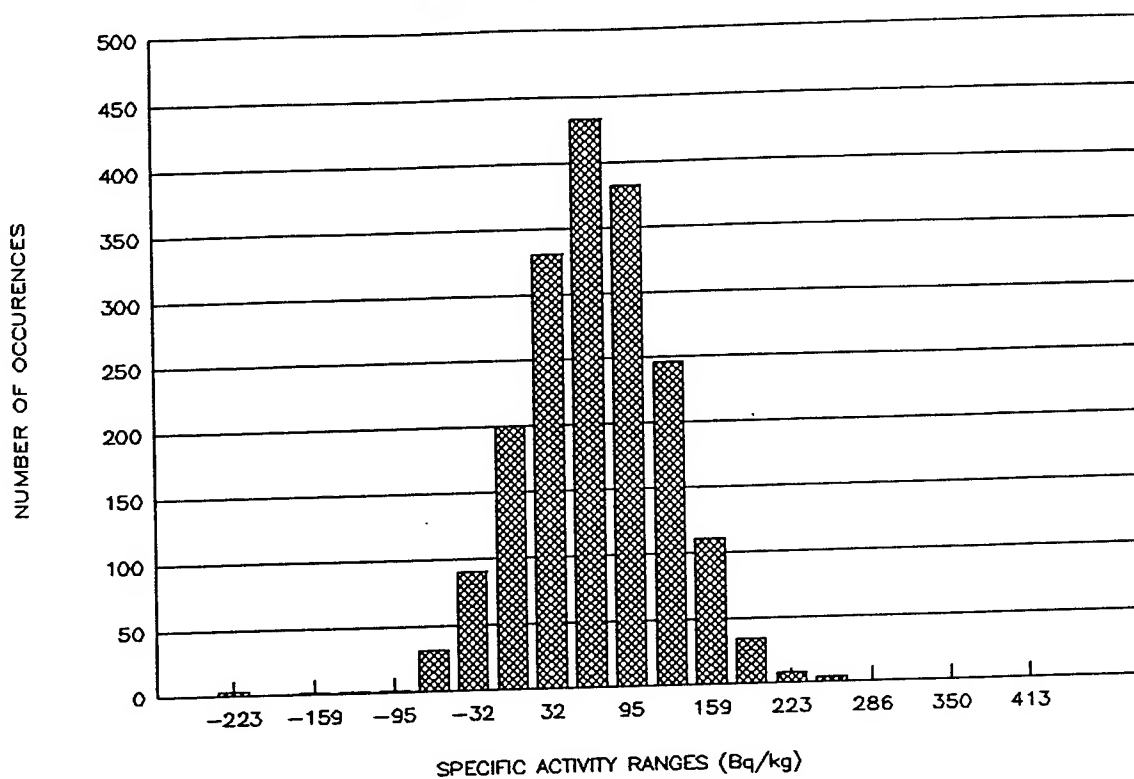
1-GATE SORTS		620	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT FREQ%		ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	22	3.5%	-14000	3	-223	4000	49	4.2%	4
2	91	14.7%	-12000	0	-191	8000	541	46.3%	8
3	96	15.5%	-10000	1	-159	12000	212	18.2%	12
4	132	21.3%	-8000	1	-127	16000	100	8.6%	16
5	116	18.7%	-6000	1	-95	20000	61	5.2%	20
6	96	15.5%	-4000	31	-64	24000	45	3.9%	24
7	55	8.9%	-2000	91	-32	28000	31	2.7%	28
8	12	1.9%	0	200	0	32000	16	1.4%	32
TOTAL	620		2000	331	32	36000	16	1.4%	36
			4000	433	64	40000	9	0.8%	40
			6000	382	95	44000	15	1.3%	44
2-GATE SORTS		548	8000	246	127	48000	2	0.2%	48
DETECTR	SORTS	FREQ%	10000	111	159	52000	7	0.6%	52
8			12000	34	191	56000	3	0.3%	56
9	46	8.4%	14000	8	223	60000	6	0.5%	60
10	72	13.1%	16000	4	254	64000	9	0.8%	64
11	101	18.4%	18000	0	286	68000	3	0.3%	68
12	130	23.7%	20000	0	318	72000	1	0.1%	72
13	88	16.1%	22000	0	350	76000	4	0.3%	76
14	84	15.3%	24000	0	382	80000	5	0.4%	80
15	27	4.9%	26000	0	413	84000	2	0.2%	84
TOTAL	548		>28000	0	0	>84000	31	2.7%	>84
			TOTAL	1877		TOTAL	1168		
SUMMARY TOTALS									
HOT PARTICLE EVENTS			1173	SORTS BY ONE GATE ONLY			620		
MULTIPARTICLE EVENTS			412	SORTS BY TWO GATES			548		
DISTRIBUTED EVENTS			0						

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 30-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 29-Apr-93

AVERAGE BACKGROUND COUNT RATE	0.80 ± 0.01 c/sec		
SORTER SOIL DENSITY	1.35 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	1.40 tons	117.9 tons	
MAXIMUM/SORT	8.6 kg	62.9 kg	
MINIMUM/SORT	0.8 kg	54.2 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			98.8%
EQUIVALENT SOIL-IN-GROUND	1.11 yd ³	93.5 yd ³	94.6 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	26,851 kBq		
MAXIMUM/SORT	1,133 kBq		
MINIMUM/SORT	2.6 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	8,455 kBq	8,323 kBq	
MAXIMUM/SORT	561 kBq	21 kBq	
MINIMUM/SORT	0 Bq	-6 kBq	
SPECIFIC ACTIVITY	6,041 Bq/kg	71 Bq/kg	
WORK HISTORY			
WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:26 AM	END SOIL PROCESSING	04:58 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS	11.5 hr		
AVAILABLE HOURS	11.5 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	10.54 hr		
DOWN-TIME	0.96 hr		
TOTAL SYSTEM PAUSE	0.00 hr		
NONAVAILABLE HOURS	0.0 hr		
START-UP	0.44 hr		
SHUT-DOWN	0.52 hr		
PLANT PERFORMANCE	91.6%		
PRODUCTIVITY	91.6%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	3,269		
NONPROCESS RECORDS (Test, calibration, etc)	5		
20-SEC PROCESS RECORDS	1,897		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	1,119 AD=0 & MD=0 & MND>0		
SOME SORT	778 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	4	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	07:07:52	None
ACT_P <5 kBq	275 20.0%	07:30:12	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	18,970	11:02:52
2-SEC RECORDS WITH SORTS	1,372 (ACT_P >0 kBq)	11:22:12
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		
2 DETECTORS	294	81.7%
3 DETECTORS	55	15.3%
4 DETECTORS	10	2.8%
5 DETECTORS	1	0.3%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	360	
NET 2-SEC RECORDS WITH SORTS	1,012	
2-SEC PERIODS WITH NO SORTS	17,958	
AVG TIME BETWEEN 2-SEC SORTS	37.5 sec	

1-GATE SORTS	681	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	15	2.2%	-14000	1	-223	4000	69	5.0%
2	49	7.2%	-12000	0	-191	8000	647	47.2%
3	102	15.0%	-10000	1	-159	12000	234	17.1%
4	120	17.6%	-8000	0	-127	16000	105	7.7%
5	137	20.1%	-6000	2	-95	20000	69	5.0%
6	99	14.5%	-4000	11	-64	24000	52	3.8%
7	115	16.9%	-2000	46	-32	28000	28	2.0%
8	44	6.5%	0	168	0	32000	22	1.6%
TOTAL	681		2000	301	32	36000	21	1.5%
			4000	408	64	40000	18	1.3%
2-GATE SORTS	691		6000	367	95	44000	12	0.9%
DETECTR	SORTS	FREQ%	8000	288	127	48000	14	1.0%
8			10000	171	159	52000	6	0.4%
9	27	3.9%	12000	76	191	56000	4	0.3%
10	72	10.4%	14000	35	223	60000	7	0.5%
11	126	18.2%	16000	17	254	64000	5	0.4%
12	137	19.8%	18000	6	286	68000	6	0.4%
13	127	18.4%	20000	2	318	72000	5	0.4%
14	115	16.6%	22000	2	350	76000	3	0.2%
15	87	12.6%	24000	0	382	80000	2	0.1%
TOTAL	691		26000	0	413	84000	2	0.1%
			>28000	0	0	>84000	41	3.0%
			TOTAL	1902		TOTAL	1372	

SUMMARY TOTALS

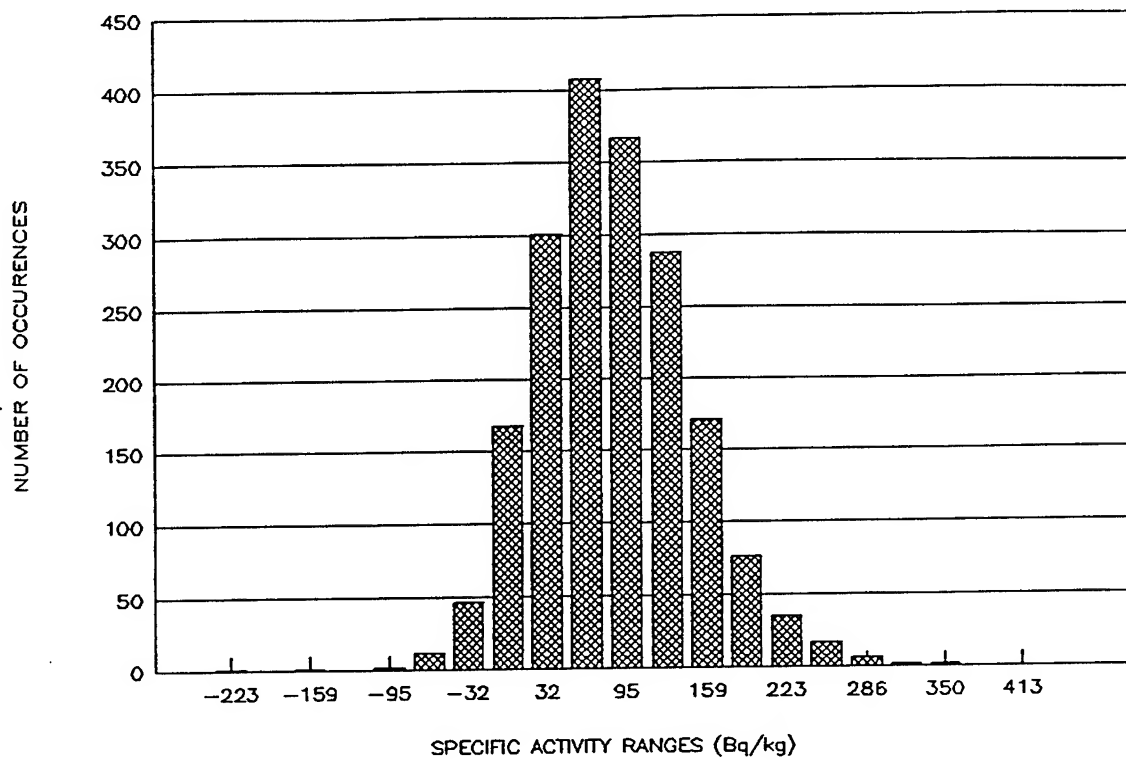
HOT PARTICLE EVENTS	1392	SORTS BY ONE GATE ONLY	681
MULTIPARTICLE EVENTS	373	SORTS BY TWO GATES	691
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
2.00 Empty belt
3.00 Test (No process soil)

CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 29-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 29-Apr-93

AVERAGE BACKGROUND COUNT RATE	0.86 ± 0.05 c/sec		
SORTER SOIL DENSITY	1.35 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	1.25 tons	118.1 tons	
MAXIMUM/SORT	8.6 kg	62.9 kg	
MINIMUM/SORT	0.8 kg	54.2 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			98.9%
EQUIVALENT SOIL-IN-GROUND	0.99 yd ³	93.6 yd ³	94.6 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	22,861 kBq		
MAXIMUM/SORT	1,264 kBq		
MINIMUM/SORT	2.5 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	7,366 kBq	6,773 kBq	
MAXIMUM/SORT	688 kBq	19 kBq	
MINIMUM/SORT	0 Bq	-9 kBq	
SPECIFIC ACTIVITY	5,870 Bq/kg	57 Bq/kg	
WORK HISTORY			
WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:26 AM	END SOIL PROCESSING	04:58 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS		11.5 hr	
AVAILABLE HOURS		11.5 hr	
ACTUAL PROCESS HOURS (total 20-sec records)		10.54 hr	
DOWN-TIME		0.96 hr	
TOTAL SYSTEM PAUSE		0.00 hr	
NONAVAILABLE HOURS		0.0 hr	
START-UP		0.44 hr	
SHUT-DOWN		0.52 hr	
PLANT PERFORMANCE		91.6%	
PRODUCTIVITY		91.6%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)		3,098	
NONPROCESS RECORDS (Test, calibration, etc)		5	
20-SEC PROCESS RECORDS		1,897	
TOTAL SORT		0 MD>0 & MND=0	
NO SORT		1,165 AD=0 & MD=0 & MND>0	
SOME SORT		732 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS		0	
0<AD<1kBq & MD>0	5		UNEXPLAIN PAUSE
AD=0 & MD	0		TIME TIME
AD<0 & MD	0		06:48:12 None
ACT_P <5 kBq	206	17.2%	08:06:52

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	18,970	08:28:52
2-SEC RECORDS WITH SORTS	1,201 (ACT_P >0 kBq)	10:46:32
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		16:58:32
2 DETECTORS	242 80.9%	
3 DETECTORS	49 16.4%	
4 DETECTORS	8 2.7%	
5 DETECTORS	0 0.0%	
6 DETECTORS	0 0.0%	
7 DETECTORS	0 0.0%	
8 DETECTORS	0 0.0%	
TOTAL	299	
NET 2-SEC RECORDS WITH SORTS	902	
2-SEC PERIODS WITH NO SORTS	18,068	
AVG TIME BETWEEN 2-SEC SORTS	42.1 sec	

1-GATE SORTS	640	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	23	3.6%	-14000	0	-223	4000	51	4.2%
2	119	18.6%	-12000	1	-191	8000	556	46.3%
3	103	16.1%	-10000	2	-159	12000	208	17.3%
4	128	20.0%	-8000	1	-127	16000	99	8.2%
5	98	15.3%	-6000	7	-95	20000	65	5.4%
6	86	13.4%	-4000	35	-64	24000	36	3.0%
7	66	10.3%	-2000	104	-32	28000	28	2.3%
8	17	2.7%	0	226	0	32000	19	1.6%
TOTAL	640		2000	331	32	36000	22	1.8%
			4000	371	64	40000	11	0.9%
2-GATE SORTS	561		6000	335	95	44000	12	1.0%
DETECTR	SORTS	FREQ%	8000	221	127	48000	6	0.5%
8			10000	129	159	52000	10	0.8%
9	59	10.5%	12000	81	191	56000	6	0.5%
10	77	13.7%	14000	31	223	60000	4	0.3%
11	117	20.9%	16000	19	254	64000	7	0.6%
12	119	21.2%	18000	5	286	68000	4	0.3%
13	81	14.4%	20000	3	318	72000	5	0.4%
14	69	12.3%	22000	0	350	76000	6	0.5%
15	39	7.0%	24000	0	382	80000	7	0.6%
TOTAL	561		26000	0	413	84000	3	0.2%
			>28000	0	0	>84000	36	3.0%
			TOTAL	1902		TOTAL	1201	

SUMMARY TOTALS

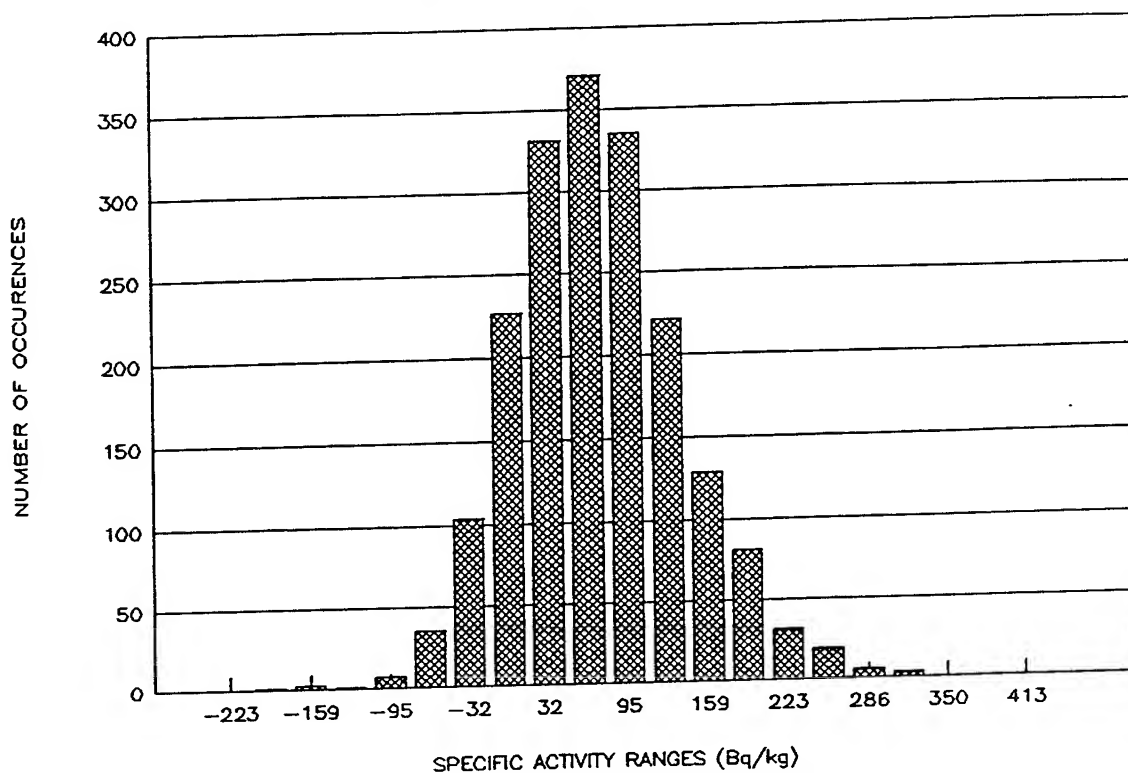
HOT PARTICLE EVENTS	1186	SORTS BY ONE GATE ONLY	640
MULTIPARTICLE EVENTS	394	SORTS BY TWO GATES	561
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

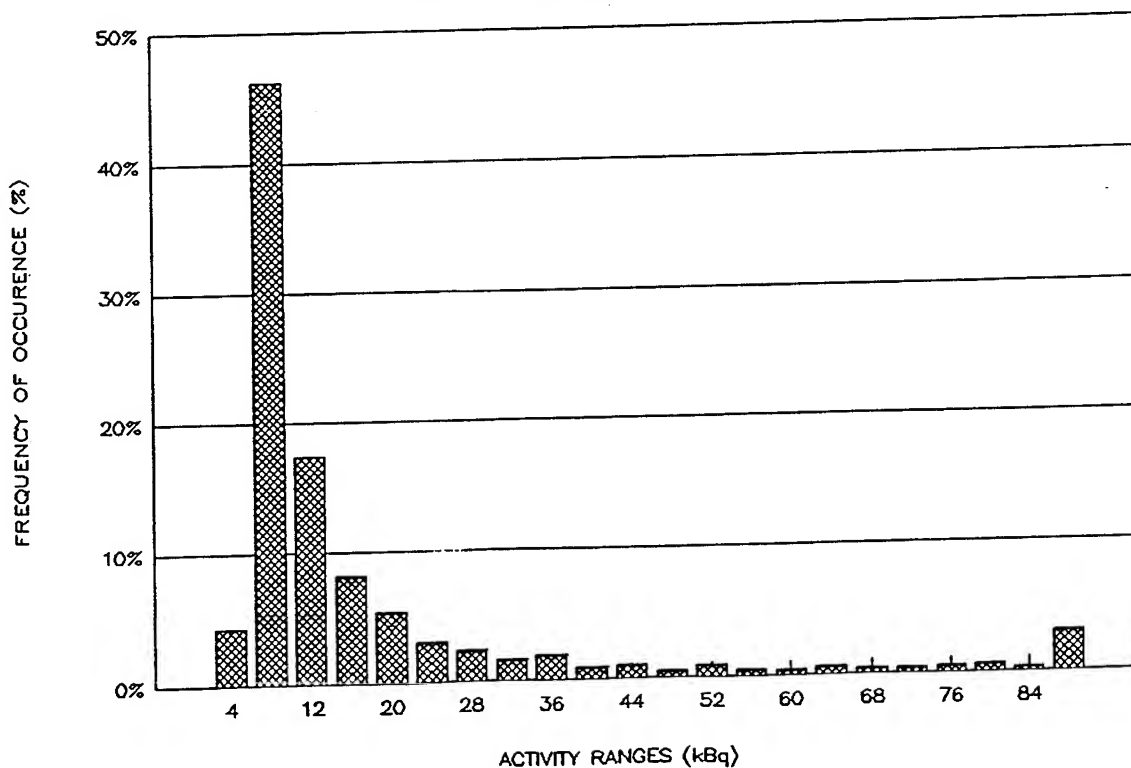
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 29-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 29-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 28-Apr-93

AVERAGE BACKGROUND COUNT RATE 0.81 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.3 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	1.79 tons	114.8 tons
MAXIMUM/SORT	9.1 kg	60.5 kg
MINIMUM/SORT	0.8 kg	51.5 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		98.5%
EQUIVALENT SOIL-IN-GROUND	1.42 yd ³	91.0 yd ³ 92.5 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)
 TOTAL 40,933 kBq
 MAXIMUM/SORT 2,363 kBq
 MINIMUM/SORT 2.8 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	13,339 kBq	10,042 kBq
MAXIMUM/SORT	1273 kBq	18 kBq
MINIMUM/SORT	-64 Bq	-6 kBq
SPECIFIC ACTIVITY	7,461 Bq/kg	87 Bq/kg

WORK HISTORY

WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:16 AM	END SOIL PROCESSING	04:58 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.5 hr
AVAILABLE HOURS	11.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.71 hr
DOWN-TIME	0.79 hr
TOTAL SYSTEM PAUSE	0.00 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.27 hr
SHUT-DOWN	0.53 hr
PLANT PERFORMANCE	93.1%
PRODUCTIVITY	93.1%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 3,693
 NONPROCESS RECORDS (Test, calibration, etc) 7

20-SEC PROCESS RECORDS

TOTAL SORT	0 MD>0 & MND=0	
NO SORT	960 AD=0 & MD=0 & MND>0	
SOME SORT	966 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS	1	
0<AD<1kBq & MD>0	5	UNEXPLAIN
AD=0 & MD	0	TIME
AD<0 & MD	1	08:52:46
ACT_P <5 kBq	356 20.2%	10:41:46

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	19,270	10:50:26
2-SEC RECORDS WITH SORTS	1,766 (ACT_P >0 kBq)	11:10:26
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		12:02:06
2 DETECTORS	375 83.1%	16:07:26
3 DETECTORS	63 14.0%	
4 DETECTORS	12 2.7%	
5 DETECTORS	1 0.2%	
6 DETECTORS	0 0.0%	
7 DETECTORS	0 0.0%	
8 DETECTORS	0 0.0%	
TOTAL	451	
NET 2-SEC RECORDS WITH SORTS	1,315	
2-SEC PERIODS WITH NO SORTS	17,955	
AVG TIME BETWEEN 2-SEC SORTS	29.3 sec	

1-GATE SORTS	881	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	15	1.7%	-14000	1	-231	4000	96	5.4%
2	62	7.0%	-12000	1	-198	8000	802	45.4%
3	109	12.4%	-10000	0	-165	12000	294	16.6%
4	158	17.9%	-8000	0	-132	16000	165	9.3%
5	172	19.5%	-6000	1	-99	20000	93	5.3%
6	131	14.9%	-4000	9	-66	24000	67	3.8%
7	168	19.1%	-2000	30	-33	28000	29	1.6%
8	66	7.5%	0	78	0	32000	32	1.8%
TOTAL	881		2000	248	33	36000	24	1.4%
			4000	375	66	40000	24	1.4%
2-GATE SORTS	885		6000	409	99	44000	14	0.8%
DETECTR	SORTS	FREQ%	8000	365	132	48000	13	0.7%
8			10000	230	165	52000	9	0.5%
9	32	3.6%	12000	138	198	56000	4	0.2%
10	97	11.0%	14000	32	231	60000	4	0.2%
11	136	15.4%	16000	14	264	64000	7	0.4%
12	155	17.5%	18000	2	298	68000	8	0.5%
13	156	17.6%	20000	1	331	72000	4	0.2%
14	157	17.7%	22000	0	364	76000	10	0.6%
15	152	17.2%	24000	0	397	80000	5	0.3%
TOTAL	885		26000	0	430	84000	3	0.2%
			>28000	0	0	>84000	59	3.3%
			TOTAL	1934		TOTAL	1766	

SUMMARY TOTALS

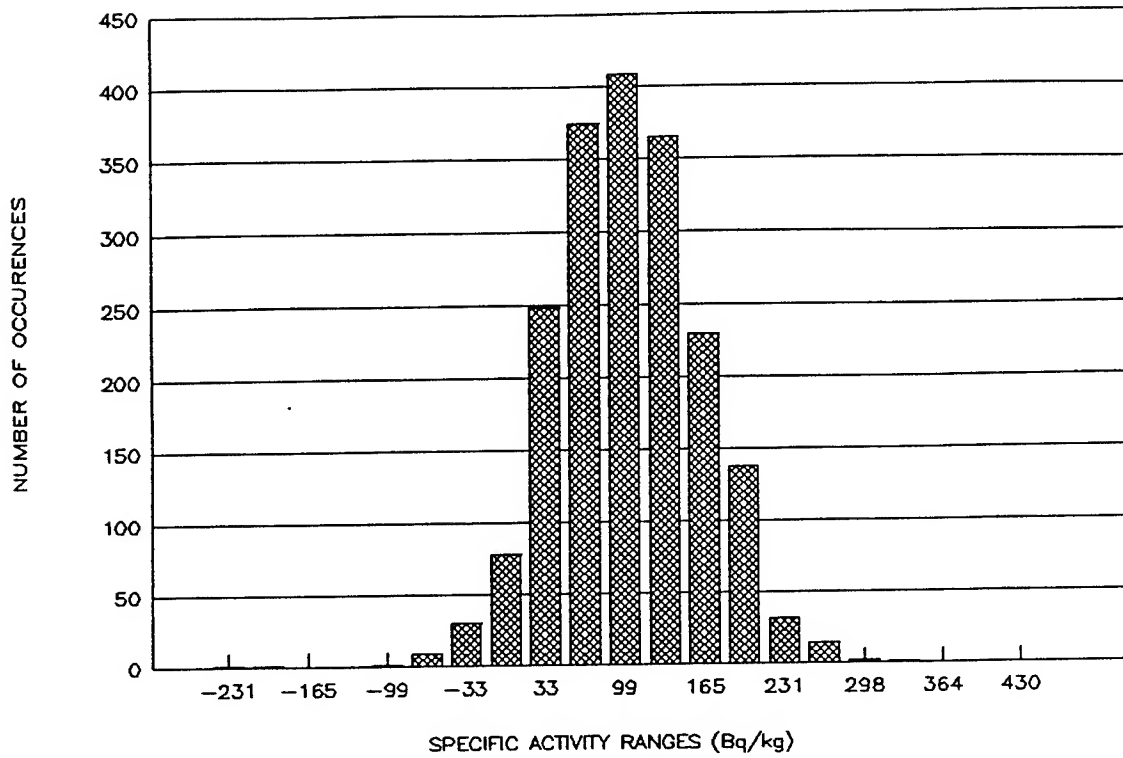
HOT PARTICLE EVENTS	1793	SORTS BY ONE GATE ONLY	881
MULTIPARTICLE EVENTS	557	SORTS BY TWO GATES	885
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
2.00 Empty belt
3.00 Test (No process soil)

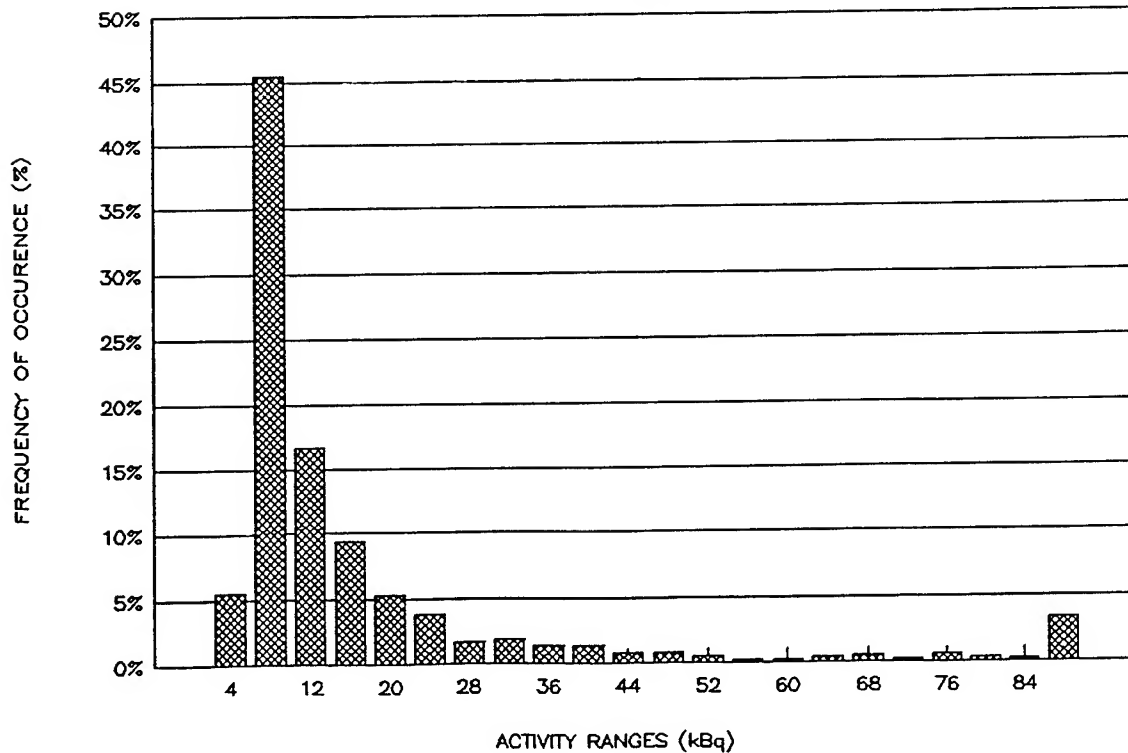
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 28-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 28-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 28-Apr-93

AVERAGE BACKGROUND COUNT RATE	0.88 ± 0.04 c/sec		
SORTER SOIL DENSITY	1.3 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	1.85 tons	114.9 tons	
MAXIMUM/SORT	8.3 kg	60.5 kg	
MINIMUM/SORT	0.8 kg	52.2 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			98.4%
EQUIVALENT SOIL-IN-GROUND	1.47 yd ³	91.1 yd ³	92.6 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	35,071 kBq		
MAXIMUM/SORT	1,986 kBq		
MINIMUM/SORT	2.7 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	11,444 kBq	9,190 kBq	
MINIMUM/SORT	993 kBq	18 kBq	
SPECIFIC ACTIVITY	0 Bq	-6 kBq	
	6,182 Bq/kg	80 Bq/kg	
WORK HISTORY			
WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:15 AM	END SOIL PROCESSING	04:58 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS	11.5 hr		
AVAILABLE HOURS	11.5 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	10.72 hr		
DOWN-TIME	0.78 hr		
TOTAL SYSTEM PAUSE	0.00 hr		
NONAVAILABLE HOURS	0.0 hr		
START-UP	0.26 hr		
SHUT-DOWN	0.53 hr		
PLANT PERFORMANCE	93.2%		
PRODUCTIVITY	93.2%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	3,740		
NONPROCESS RECORDS (Test, calibration, etc)	5		
20-SEC PROCESS RECORDS	1,929		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	905 AD=0 & MD=0 & MND>0		
SOME SORT	1,024 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	4	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	09:25:46	None
ACT_P <5 kBq	315 17.4%	10:54:26	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	19,290	13:39:26
2-SEC RECORDS WITH SORTS	1,811 (ACT_P >0 kBq)	16:58:06
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		
2 DETECTORS	359	84.3%
3 DETECTORS	62	14.6%
4 DETECTORS	5	1.2%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	426	
NET 2-SEC RECORDS WITH SORTS	1,385	
2-SEC PERIODS WITH NO SORTS	17,905	
AVG TIME BETWEEN 2-SEC SORTS	27.9 sec	

1-GATE SORTS	936	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P	
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)	
1	38	4.1%	-14000	4	-231	4000	95	5.2%	4
2	155	16.6%	-12000	1	-198	8000	803	44.3%	8
3	140	15.0%	-10000	0	-165	12000	328	18.1%	12
4	201	21.5%	-8000	0	-132	16000	154	8.5%	16
5	180	19.2%	-6000	0	-99	20000	97	5.4%	20
6	132	14.1%	-4000	15	-66	24000	71	3.9%	24
7	73	7.8%	-2000	46	-33	28000	35	1.9%	28
8	17	1.8%	0	144	0	32000	39	2.2%	32
TOTAL	936		2000	252	33	36000	23	1.3%	36
			4000	371	66	40000	23	1.3%	40
2-GATE SORTS	875		6000	371	99	44000	19	1.0%	44
DETECTR	SORTS	FREQ%	8000	353	132	48000	13	0.7%	48
8			10000	218	165	52000	13	0.7%	52
9	68	7.8%	12000	105	198	56000	6	0.3%	56
10	136	15.5%	14000	35	231	60000	12	0.7%	60
11	169	19.3%	16000	15	264	64000	7	0.4%	64
12	189	21.6%	18000	2	298	68000	5	0.3%	68
13	170	19.4%	20000	2	331	72000	11	0.6%	72
14	104	11.9%	22000	0	364	76000	3	0.2%	76
15	39	4.5%	24000	0	397	80000	4	0.2%	80
TOTAL	875		26000	0	430	84000	2	0.1%	84
			>28000	0	0	>84000	48	2.7%	>84
			TOTAL	1934		TOTAL	1811		

SUMMARY TOTALS

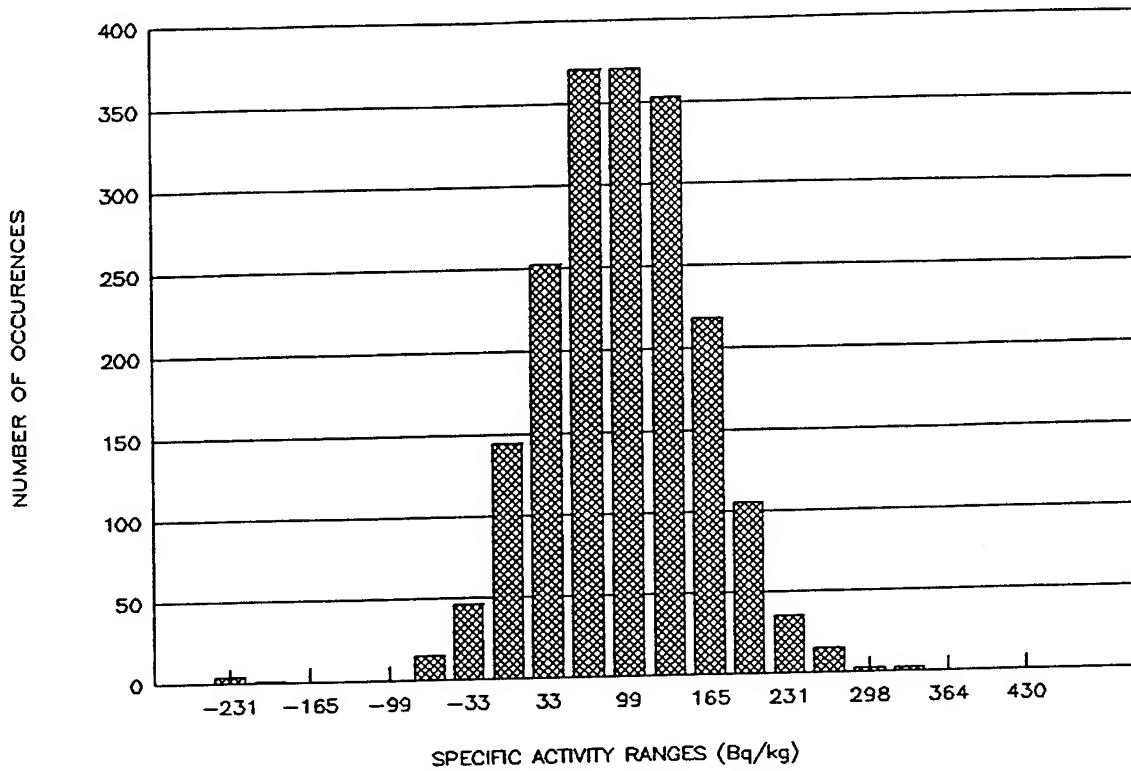
HOT PARTICLE EVENTS	1838	SORTS BY ONE GATE ONLY	936
MULTIPARTICLE EVENTS	595	SORTS BY TWO GATES	875
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

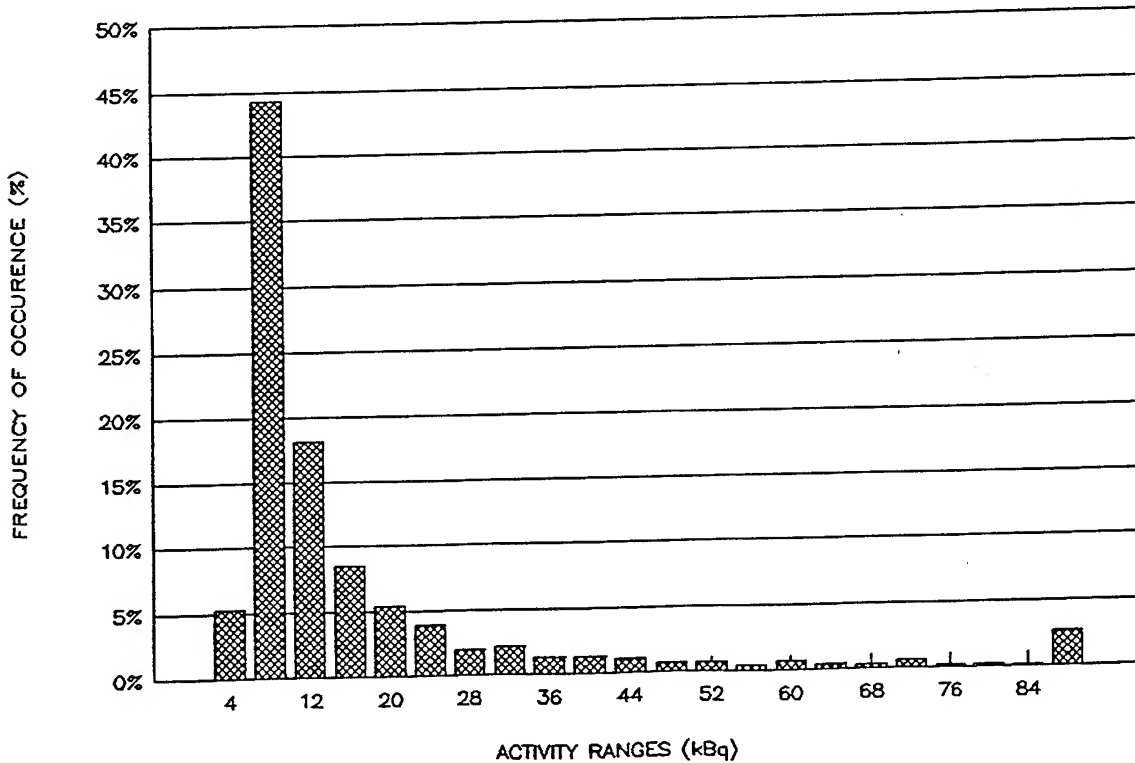
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 28-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 28-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 27-Apr-93

AVERAGE BACKGROUND COUNT RATE 0.80 ± 0.02 c/sec
 SORTER SOIL DENSITY 1.3 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	1.61 tons	112.8 tons
MAXIMUM/SORT	6.8 kg	60.5 kg
MINIMUM/SORT	0.8 kg	53.7 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		98.6%
EQUIVALENT SOIL-IN-GROUND	1.27 yd ³	89.5 yd ³ 90.7 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	26,212 kBq
MAXIMUM/SORT	432 kBq
MINIMUM/SORT	2.5 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	8,553 kBq	8,923 kBq
MAXIMUM/SORT	230 kBq	18 kBq
MINIMUM/SORT	0 Bq	-17 kBq
SPECIFIC ACTIVITY	5,326 Bq/kg	79 Bq/kg

WORK HISTORY

WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:32 AM	END SOIL PROCESSING	05:02 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.5 hr
AVAILABLE HOURS	11.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.51 hr
DOWN-TIME	0.99 hr
TOTAL SYSTEM PAUSE	0.44 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.55 hr
SHUT-DOWN	0.45 hr
PLANT PERFORMANCE	91.4%
PRODUCTIVITY	91.4%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	3,510
NONPROCESS RECORDS (Test, calibration, etc)	8

20-SEC PROCESS RECORDS	1,891		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	1,015 AD=0 & MD=0 & MND>0		
SOME SORT	875 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	1		
0<AD<1kBq & MD>0	3	UNEXPLAIN	PAUSE
AD=0 & MD	1	TIME	TIME
AD<0 & MD	0	09:10:39	06:06
ACT_P <5 kBq	355 21.9%	10:05:39	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	18,910	10:39:39
2-SEC RECORDS WITH SORTS	1,619 (ACT_P >0 kBq)	13:14:59
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		
2 DETECTORS	356	83.8%
3 DETECTORS	63	14.8%
4 DETECTORS	6	1.4%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	425	
NET 2-SEC RECORDS WITH SORTS	1,194	
2-SEC PERIODS WITH NO SORTS	17,716	
AVG TIME BETWEEN 2-SEC SORTS	31.7 sec	

1-GATE SORTS	804	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	18	2.2%	-14000	1	-231	4000	103	6.4%
2	76	9.5%	-12000	1	-198	8000	741	45.8%
3	110	13.7%	-10000	2	-165	12000	263	16.2%
4	147	18.3%	-8000	1	-132	16000	141	8.7%
5	154	19.2%	-6000	0	-99	20000	92	5.7%
6	127	15.8%	-4000	1	-66	24000	43	2.7%
7	118	14.7%	-2000	25	-33	28000	42	2.6%
8	54	6.7%	0	101	0	32000	24	1.5%
TOTAL	804		2000	250	33	36000	16	1.0%
			4000	392	66	40000	21	1.3%
			6000	502	99	44000	11	0.7%
2-GATE SORTS	815		8000	355	132	48000	21	1.3%
DETECTR	SORTS	FREQ%	10000	180	165	52000	11	0.7%
8			12000	64	198	56000	12	0.7%
9	44	5.4%	14000	15	231	60000	4	0.2%
10	96	11.8%	16000	7	264	64000	6	0.4%
11	124	15.2%	18000	2	298	68000	10	0.6%
12	148	18.2%	20000	0	331	72000	7	0.4%
13	170	20.9%	22000	0	364	76000	7	0.4%
14	124	15.2%	24000	0	397	80000	8	0.5%
15	109	13.4%	26000	0	430	84000	1	0.1%
TOTAL	815		>28000	0	0	>84000	35	2.2%
			TOTAL	1899		TOTAL	1619	

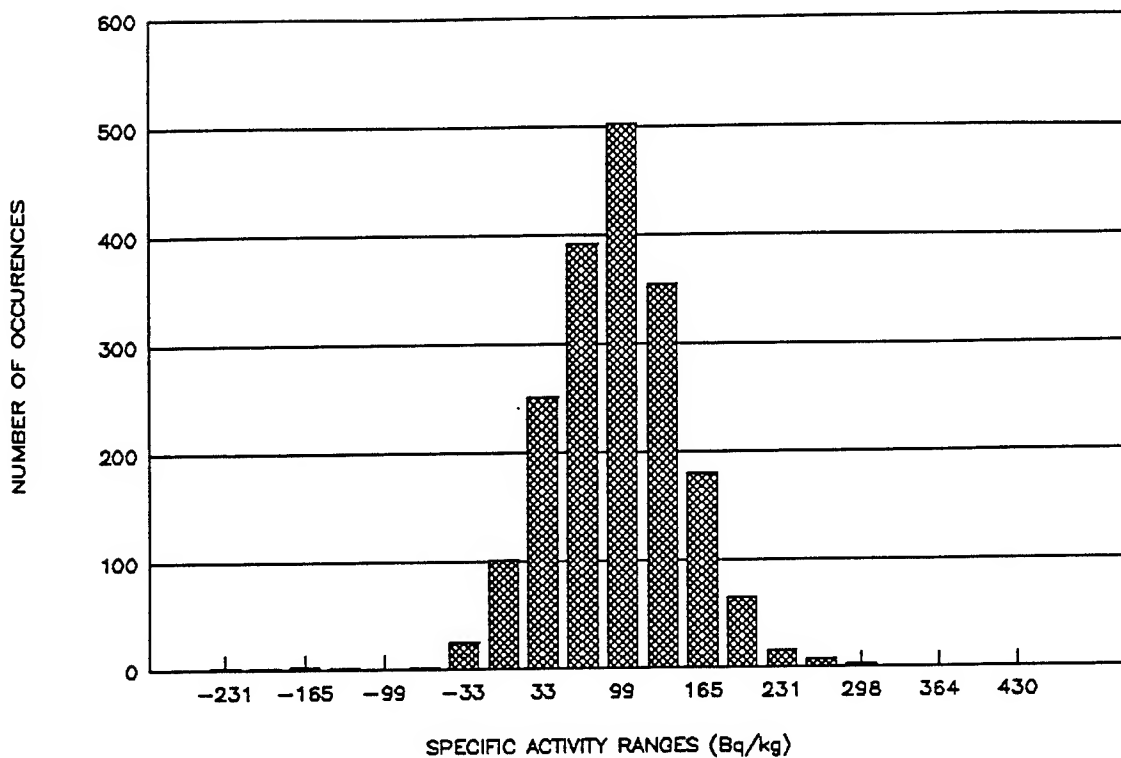
SUMMARY TOTALS		
HOT PARTICLE EVENTS	1654	SORTS BY ONE GATE ONLY
MULTIPARTICLE EVENTS	456	SORTS BY TWO GATES
DISTRIBUTED EVENTS	0	

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

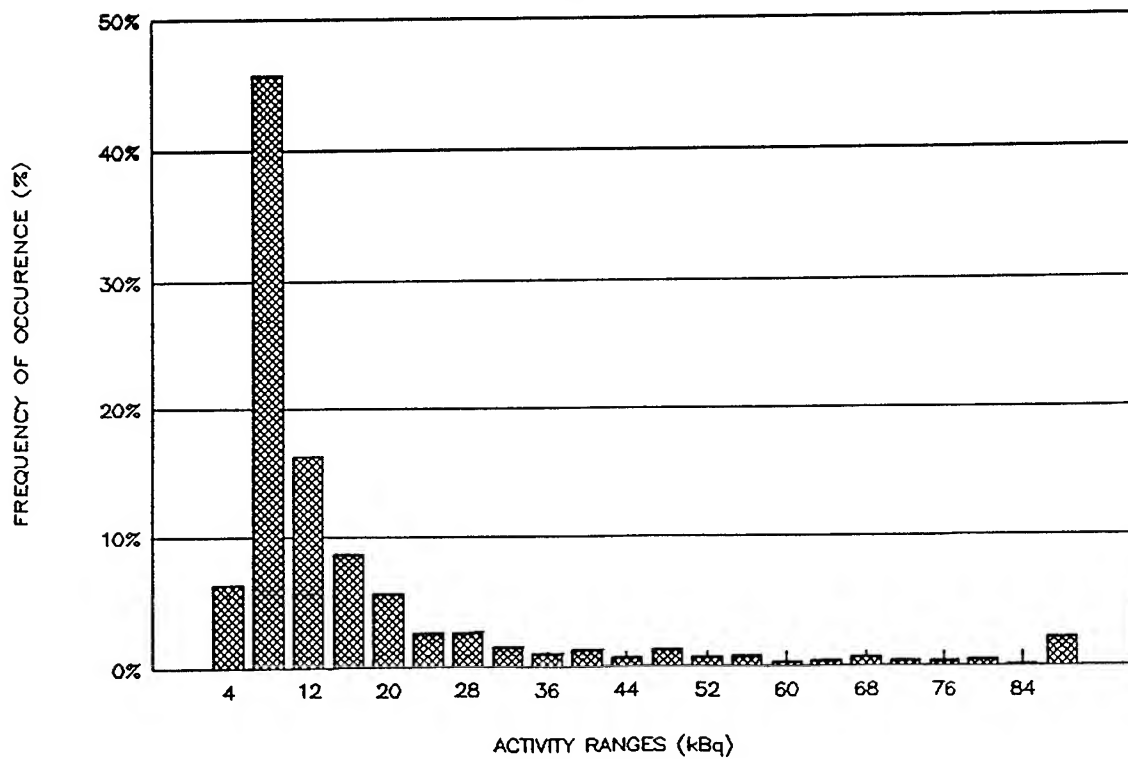
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 27-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 27-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 27-Apr-93

AVERAGE BACKGROUND COUNT RATE	0.88 ± 0.03 c/sec		
SORTER SOIL DENSITY	1.3 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		1.61 tons	113.2 tons
MAXIMUM/SORT		7.6 kg	60.5 kg
MINIMUM/SORT		0.8 kg	53 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			98.6%
EQUIVALENT SOIL-IN-GROUND	1.27 yd ³	89.7 yd ³	91.0 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	29,343 kBq		
MAXIMUM/SORT	1,302 kBq		
MINIMUM/SORT	3.0 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	9,863 kBq	8,889 kBq	
MINIMUM/SORT	727 kBq	17 kBq	
SPECIFIC ACTIVITY	0 Bq	-16 kBq	
	6,142 Bq/kg	79 Bq/kg	
WORK HISTORY			
WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:32 AM	END SOIL PROCESSING	05:04 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS		11.5 hr	
AVAILABLE HOURS		11.5 hr	
ACTUAL PROCESS HOURS (total 20-sec records)		10.54 hr	
DOWN-TIME		0.96 hr	
TOTAL SYSTEM PAUSE		0.44 hr	
NONAVAILABLE HOURS		0.0 hr	
START-UP		0.55 hr	
SHUT-DOWN		0.42 hr	
PLANT PERFORMANCE		91.6%	
PRODUCTIVITY		91.6%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)		3,437	
NONPROCESS RECORDS (Test, calibration, etc)		2	
20-SEC PROCESS RECORDS		1,897	
TOTAL SORT		0 MD>0 & MND=0	
NO SORT		979 AD=0 & MD=0 & MND>0	
SOME SORT		917 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS		1	
0<AD<1kBq & MD>0	4		UNEXPLAIN PAUSE
AD=0 & MD	1		TIME TIME
AD<0 & MD	0		08:18:59 06:06
ACT_P <5 kBq	268 17.4%		10:49:19

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	18,970	11:25:59
2-SEC RECORDS WITH SORTS	1,540 (ACT_P >0 kBq)	13:06:19
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		16:37:39
2 DETECTORS	291 85.8%	
3 DETECTORS	42 12.4%	
4 DETECTORS	5 1.5%	
5 DETECTORS	1 0.3%	
6 DETECTORS	0 0.0%	
7 DETECTORS	0 0.0%	
8 DETECTORS	0 0.0%	
TOTAL	339	
NET 2-SEC RECORDS WITH SORTS	1,201	
2-SEC PERIODS WITH NO SORTS	17,769	
AVG TIME BETWEEN 2-SEC SORTS	31.6 sec	

1-GATE SORTS	796	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	42	5.3%	-14000	1	-231	4000	76	4.9%
2	139	17.5%	-12000	1	-198	8000	740	48.1%
3	135	17.0%	-10000	0	-165	12000	246	16.0%
4	139	17.5%	-8000	0	-132	16000	130	8.4%
5	130	16.3%	-6000	0	-99	20000	66	4.3%
6	114	14.3%	-4000	4	-66	24000	57	3.7%
7	73	9.2%	-2000	38	-33	28000	36	2.3%
8	24	3.0%	0	110	0	32000	25	1.6%
TOTAL	796		2000	238	33	36000	23	1.5%
			4000	419	66	40000	20	1.3%
2-GATE SORTS	744		6000	450	99	44000	15	1.0%
DETECTR	SORTS	FREQ%	8000	346	132	48000	9	0.6%
8			10000	186	165	52000	7	0.5%
9	89	12.0%	12000	64	198	56000	4	0.3%
10	131	17.6%	14000	32	231	60000	9	0.6%
11	129	17.3%	16000	7	264	64000	6	0.4%
12	132	17.7%	18000	3	298	68000	5	0.3%
13	119	16.0%	20000	0	331	72000	4	0.3%
14	91	12.2%	22000	0	364	76000	3	0.2%
15	53	7.1%	24000	0	397	80000	4	0.3%
TOTAL	744		26000	0	430	84000	4	0.3%
			>28000	0	0	>84000	51	3.3%
			TOTAL	1899		TOTAL	1540	

SUMMARY TOTALS

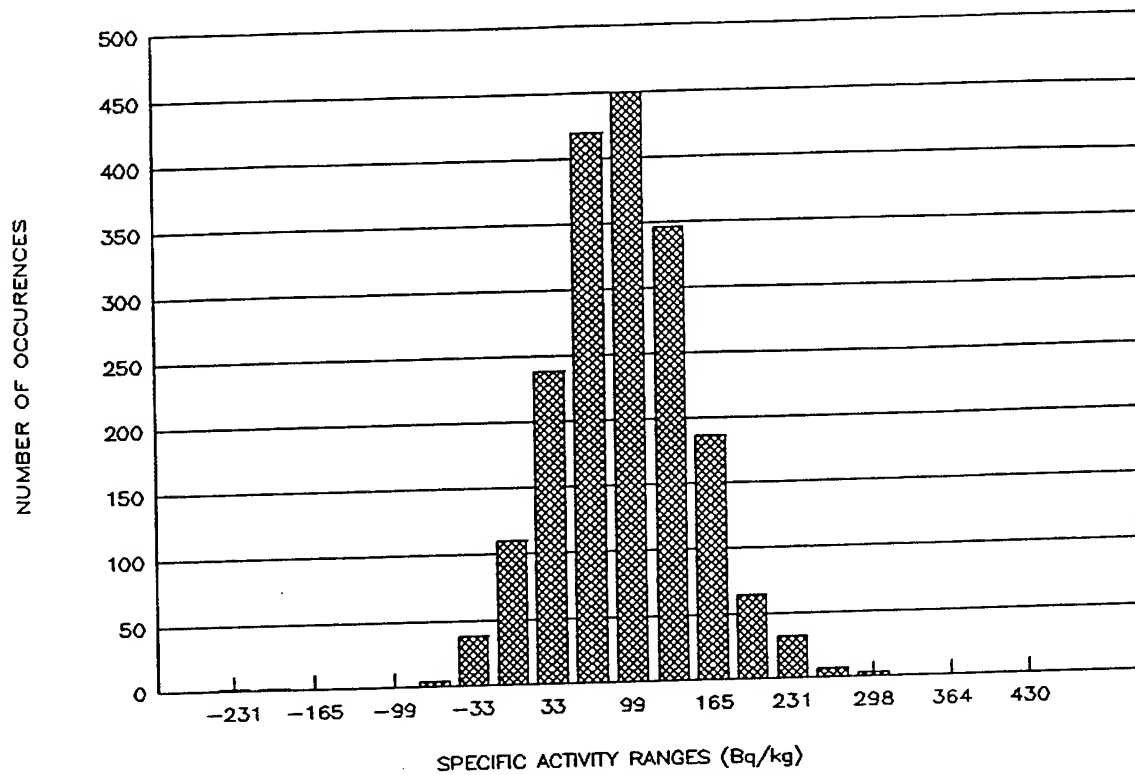
HOT PARTICLE EVENTS	1571	SORTS BY ONE GATE ONLY	796
MULTIPARTICLE EVENTS	538	SORTS BY TWO GATES	744
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
2.00 Empty belt
3.00 Test (No process soil)

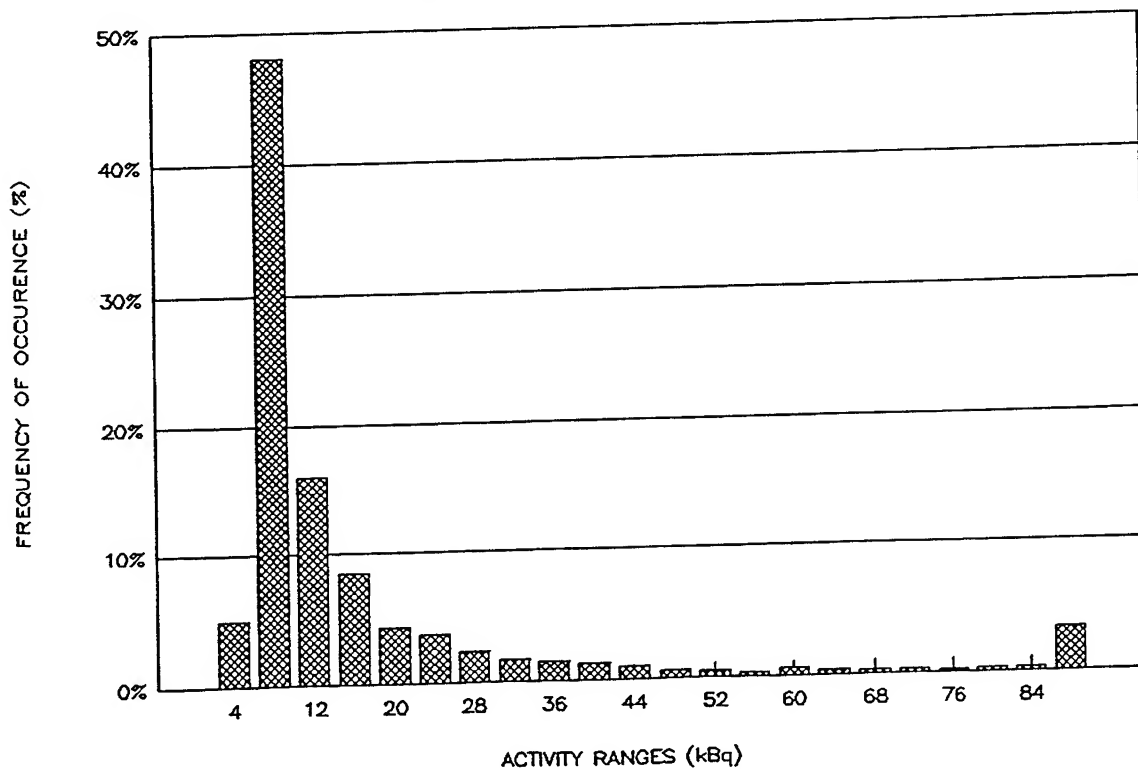
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 27-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 27-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 26-Apr-93

AVERAGE BACKGROUND COUNT RATE 0.82 ± 0.05 c/sec

SORTER SOIL DENSITY 1.3 tons/m³

GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	1.71 tons	113.3 tons
MAXIMUM/SORT	6.8 kg	60.5 kg
MINIMUM/SORT	0.8 kg	53.7 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		98.5%
EQUIVALENT SOIL-IN-GROUND	1.35 yd ³	89.9 yd ³ 91.2 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	29,201 kBq
MAXIMUM/SORT	1,053 kBq
MINIMUM/SORT	2.9 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	9,481 kBq	9,107 kBq
MAXIMUM/SORT	572 kBq	22 kBq
MINIMUM/SORT	0 Bq	-7 kBq
SPECIFIC ACTIVITY	5,552 Bq/kg	80 Bq/kg

WORK HISTORY

WORK DAY START	05:50 AM	WORK DAY END	05:30 PM
PLANT START-UP	05:50 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:27 AM	END SOIL PROCESSING	05:00 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.7 hr
AVAILABLE HOURS	11.7 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.56 hr
DOWN-TIME	1.11 hr
TOTAL SYSTEM PAUSE	0.55 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.63 hr
SHUT-DOWN	0.48 hr
PLANT PERFORMANCE	90.5%
PRODUCTIVITY	90.5%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 3,561

NONPROCESS RECORDS (Test, calibration, etc) 14

20-SEC PROCESS RECORDS

TOTAL SORT	0 MD>0 & MND=0
NO SORT	957 AD=0 & MD=0 & MND>0
SOME SORT	944 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	2
AD=0 & MD	0
AD<0 & MD	0
ACT_P <5 kBq	333 20.1%

UNEXPLAIN	PAUSE
TIME	TIME
08:21:35	05:54
16:52:55	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 19,010
 2-SEC RECORDS WITH SORTS 1,660 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 343 84.3%
 3 DETECTORS 54 13.3%
 4 DETECTORS 9 2.2%
 5 DETECTORS 1 0.2%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 407
 NET 2-SEC RECORDS WITH SORTS 1,253
 2-SEC PERIODS WITH NO SORTS 17,757
 AVG TIME BETWEEN 2-SEC SORTS 30.3 sec

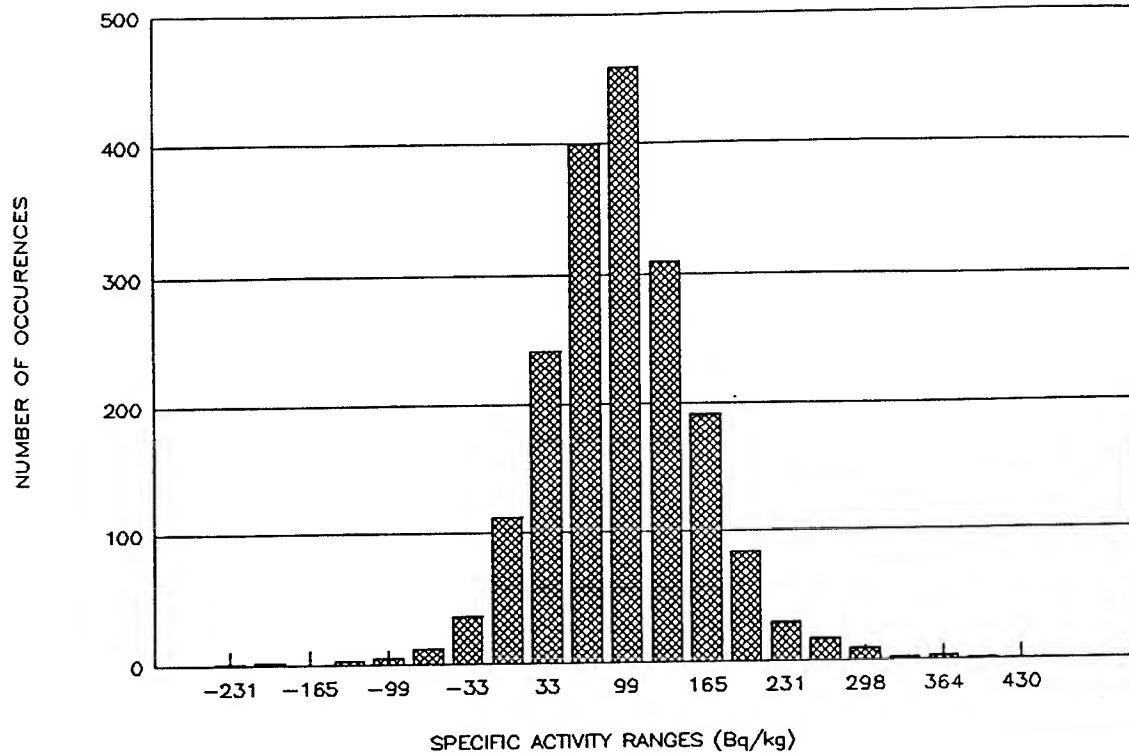
1-GATE SORTS		832	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%		ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	22	2.6%	-14000	1	-231	4000	103	6.2%	4
2	62	7.5%	-12000	2	-198	8000	743	44.8%	8
3	106	12.7%	-10000	0	-165	12000	301	18.1%	12
4	136	16.3%	-8000	3	-132	16000	148	8.9%	16
5	163	19.6%	-6000	5	-99	20000	78	4.7%	20
6	148	17.8%	-4000	12	-66	24000	53	3.2%	24
7	143	17.2%	-2000	36	-33	28000	32	1.9%	28
8	52	6.3%	0	112	0	32000	36	2.2%	32
TOTAL	832		2000	241	33	36000	20	1.2%	36
			4000	399	66	40000	23	1.4%	40
			6000	460	99	44000	18	1.1%	44
2-GATE SORTS		828	8000	309	132	48000	12	0.7%	48
DETECTR	SORTS	FREQ%	10000	191	165	52000	11	0.7%	52
8			12000	84	198	56000	9	0.5%	56
9	47	5.7%	14000	29	231	60000	4	0.2%	60
10	76	9.2%	16000	16	264	64000	4	0.2%	64
11	133	16.1%	18000	9	298	68000	5	0.3%	68
12	142	17.1%	20000	2	331	72000	5	0.3%	72
13	145	17.5%	22000	3	364	76000	8	0.5%	76
14	155	18.7%	24000	1	397	80000	4	0.2%	80
15	130	15.7%	26000	0	430	84000	3	0.2%	84
TOTAL	828		>28000	0	0	>84000	40	2.4%	>84
			TOTAL	1915		TOTAL	1660		

SUMMARY TOTALS
 HOT PARTICLE EVENTS 1696 SORTS BY ONE GATE ONLY 832
 MULTIPARTICLE EVENTS 549 SORTS BY TWO GATES 828
 DISTRIBUTED EVENTS 0

REC CODE EXPLANATION
 1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

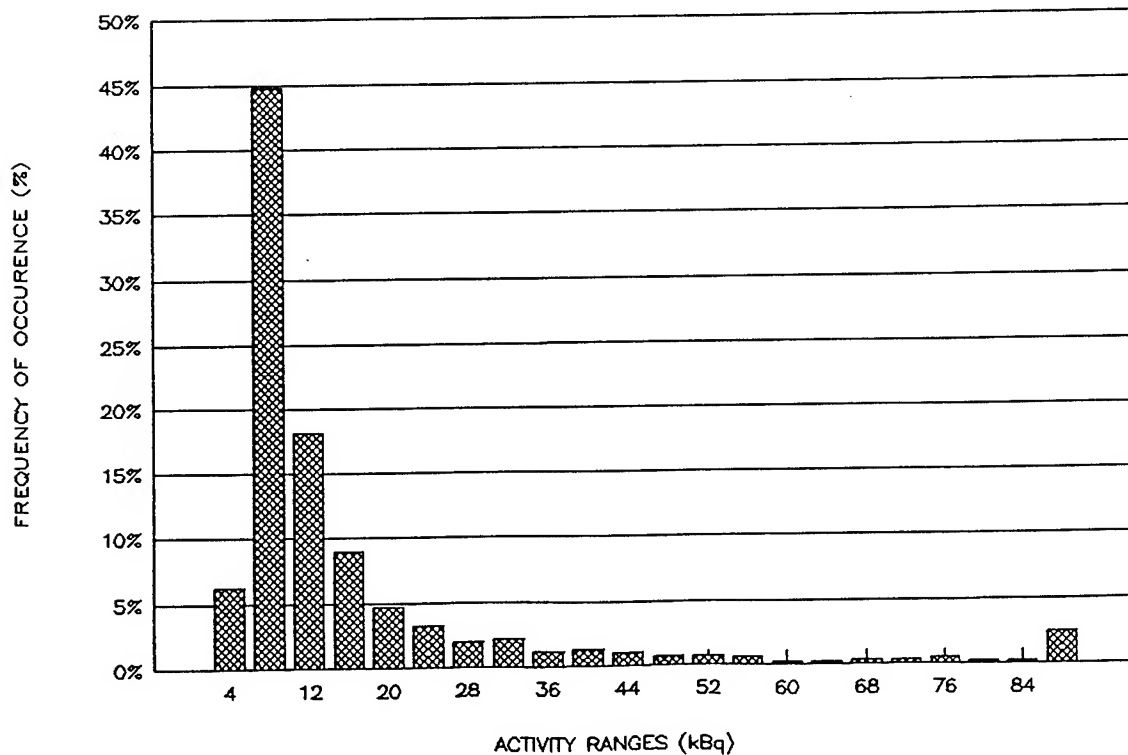
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 26-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 26-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 26-Apr-93

AVERAGE BACKGROUND COUNT RATE	0.89 ± 0.03 c/sec		
SORTER SOIL DENSITY	1.3 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	1.67 tons	113.8 tons	
MAXIMUM/SORT	6.8 kg	60.5 kg	
MINIMUM/SORT	0.8 kg	53.7 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			98.6%
EQUIVALENT SOIL-IN-GROUND	1.32 yd ³	90.2 yd ³	91.5 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	31,008 kBq		
MAXIMUM/SORT	924 kBq		
MINIMUM/SORT	2.6 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	10,087 kBq	8,037 kBq	
MINIMUM/SORT	501 kBq	19 kBq	
SPECIFIC ACTIVITY	0 Bq	-9 kBq	
	6,039 Bq/kg	71 Bq/kg	
WORK HISTORY			
WORK DAY START	05:50 AM	WORK DAY END	05:30 PM
PLANT START-UP	05:50 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:27 AM	END SOIL PROCESSING	05:02 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS		11.7 hr	
AVAILABLE HOURS		11.7 hr	
ACTUAL PROCESS HOURS (total 20-sec records)		10.59 hr	
DOWN-TIME		1.07 hr	
TOTAL SYSTEM PAUSE		0.55 hr	
NONAVAILABLE HOURS		0.0 hr	
START-UP		0.63 hr	
SHUT-DOWN		0.45 hr	
PLANT PERFORMANCE		90.8%	
PRODUCTIVITY		90.8%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)		3,532	
NONPROCESS RECORDS (Test, calibration, etc)		8	
20-SEC PROCESS RECORDS		1,907	
TOTAL SORT		0 MD>0 & MND=0	
NO SORT		987 AD=0 & MD=0 & MND>0	
SOME SORT		920 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS		0	
0<AD<1kBq & MD>0	4		UNEXPLAIN PAUSE
AD=0 & MD	0		TIME TIME
AD<0 & MD	0		09:59:16 05:54
ACT_P <5 kBq	251 15.4%		11:40:56

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	19,070	12:00:36
2-SEC RECORDS WITH SORTS	1,625 (ACT_P >0 kBq)	12:37:16
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		
2 DETECTORS	339	85.0%
3 DETECTORS	52	13.0%
4 DETECTORS	6	1.5%
5 DETECTORS	2	0.5%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	399	
NET 2-SEC RECORDS WITH SORTS	1,226	
2-SEC PERIODS WITH NO SORTS	17,844	
AVG TIME BETWEEN 2-SEC SORTS	31.1 sec	

1-GATE SORTS	833	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	39	4.7%	-14000	4	-231	4000	84	5.2%
2	127	15.2%	-12000	0	-198	8000	721	44.4%
3	169	20.3%	-10000	0	-165	12000	285	17.5%
4	158	19.0%	-8000	2	-132	16000	152	9.4%
5	146	17.5%	-6000	5	-99	20000	70	4.3%
6	114	13.7%	-4000	10	-66	24000	56	3.4%
7	63	7.6%	-2000	54	-33	28000	40	2.5%
8	17	2.0%	0	168	0	32000	34	2.1%
TOTAL	833		2000	309	33	36000	24	1.5%
			4000	395	66	40000	25	1.5%
2-GATE SORTS	792	6000	388	99	44000	15	0.9%	44
DETECTR	SORTS	FREQ%	8000	304	132	48000	12	0.7%
8			10000	167	165	52000	10	0.6%
9	77	9.7%	12000	62	198	56000	10	0.6%
10	106	13.4%	14000	22	231	60000	8	0.5%
11	182	23.0%	16000	15	264	64000	6	0.4%
12	166	21.0%	18000	8	298	68000	8	0.5%
13	124	15.7%	20000	2	331	72000	3	0.2%
14	95	12.0%	22000	0	364	76000	6	0.4%
15	42	5.3%	24000	0	397	80000	5	0.3%
TOTAL	792		26000	0	430	84000	4	0.2%
			>28000	0	0	>84000	47	2.9%
			TOTAL	1915		TOTAL	1625	

SUMMARY TOTALS

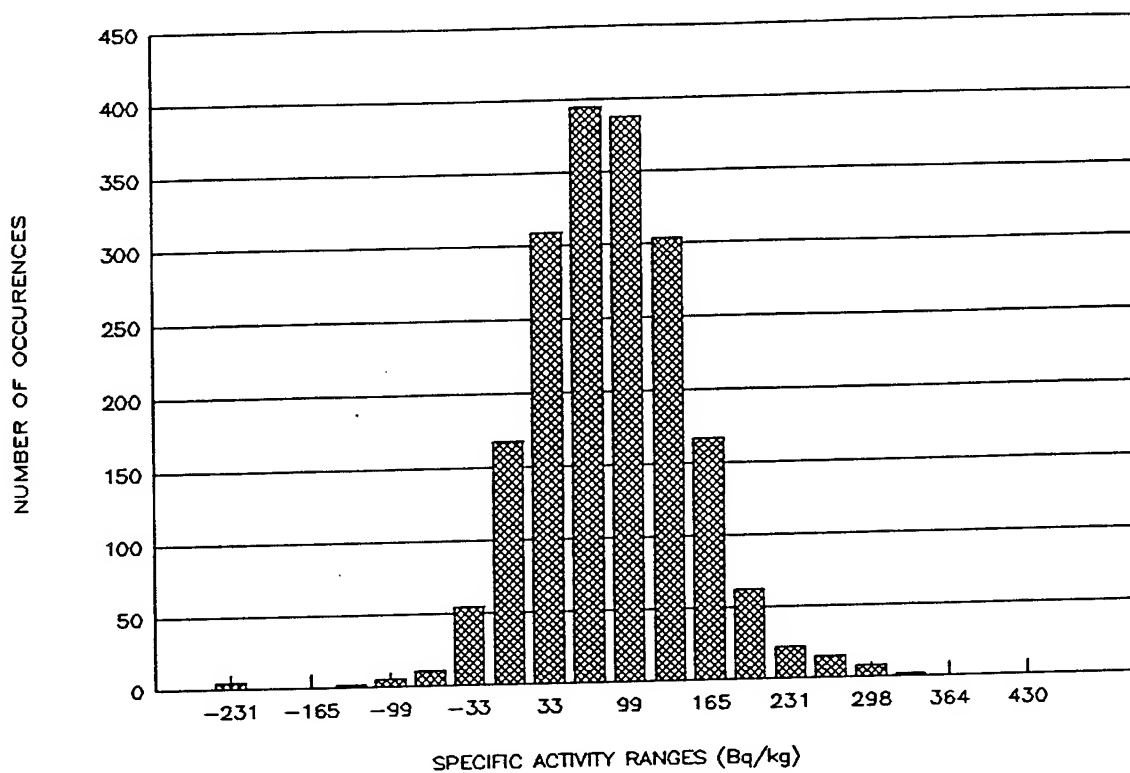
HOT PARTICLE EVENTS	1655	SORTS BY ONE GATE ONLY	833
MULTIPARTICLE EVENTS	539	SORTS BY TWO GATES	792
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
2.00 Empty belt
3.00 Test (No process soil)

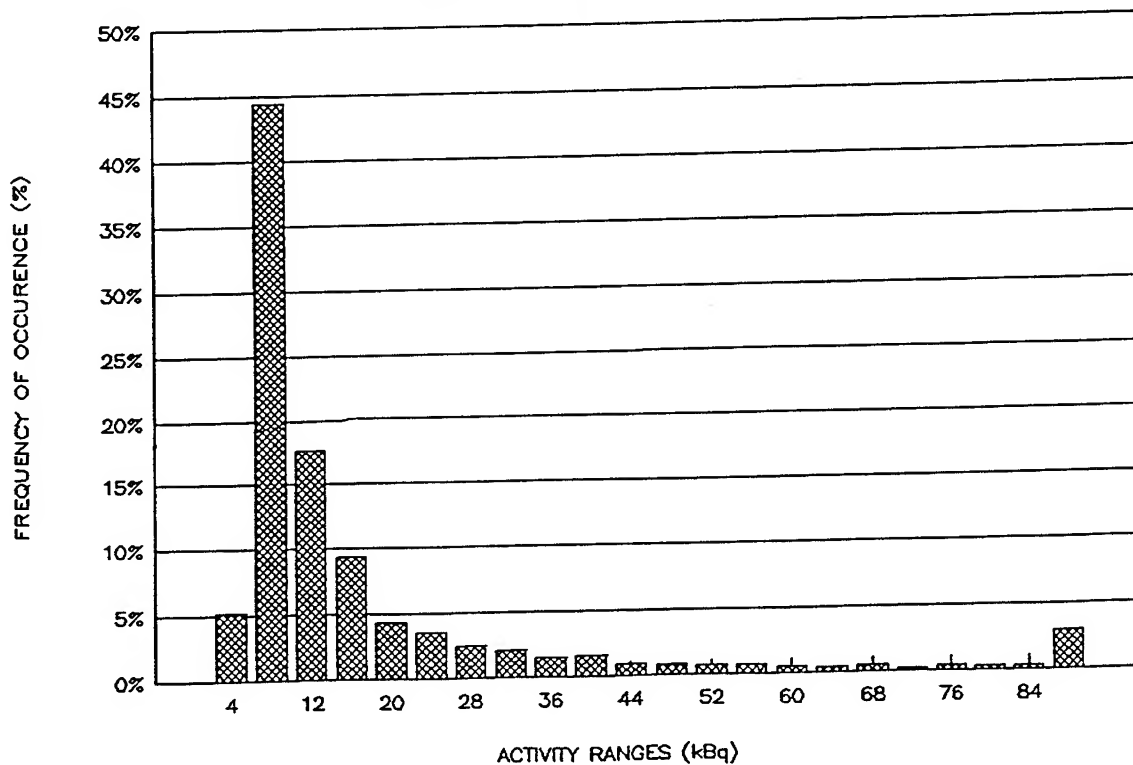
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 26-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 26-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 24-Apr-93

AVERAGE BACKGROUND COUNT RATE 0.68 ± 0.05 c/sec
 SORTER SOIL DENSITY 1.3 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN	
MASS TOTAL	0.11 tons	11.4 tons	
MAXIMUM/SORT	3.8 kg	60.5 kg	
MINIMUM/SORT	0.8 kg	56.8 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.0%
EQUIVALENT SOIL-IN-GROUND	0.09 yd ³	9.1 yd ³	9.2 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	1,255 kBq
MAXIMUM/SORT	97 kBq
MINIMUM/SORT	3.2 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	446 kBq	1,182 kBq
MAXIMUM/SORT	53 kBq	15 kBq
MINIMUM/SORT	0 Bq	-5 kBq
SPECIFIC ACTIVITY	4,038 Bq/kg	103 Bq/kg

WORK HISTORY

WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	03:26 PM	PLANT SHUT-DOWN	04:31 PM
START SOIL PROCESSING	03:26 PM	END SOIL PROCESSING	04:30 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	10.5 hr
AVAILABLE HOURS	1.1 hr
ACTUAL PROCESS HOURS (total 20-sec records)	1.06 hr
DOWN-TIME	0.02 hr
TOTAL SYSTEM PAUSE	0.00 hr
NONAVAILABLE HOURS	9.4 hr
START-UP	0.01 hr
SHUT-DOWN	0.02 hr
PLANT PERFORMANCE	97.9%
PRODUCTIVITY	10.1%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	291
NONPROCESS RECORDS (Test, calibration, etc)	5

20-SEC PROCESS RECORDS	191		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	120 AD=0 & MD=0 & MND>0		
SOME SORT	71 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	0	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	None	None
ACT_P <5 kBq	18	18.0%	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 1,910
 2-SEC RECORDS WITH SORTS 100 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 15 75.0%
 3 DETECTORS 4 20.0%
 4 DETECTORS 1 5.0%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 20
 NET 2-SEC RECORDS WITH SORTS 80
 2-SEC PERIODS WITH NO SORTS 1,830
 AVG TIME BETWEEN 2-SEC SORTS 47.8 sec

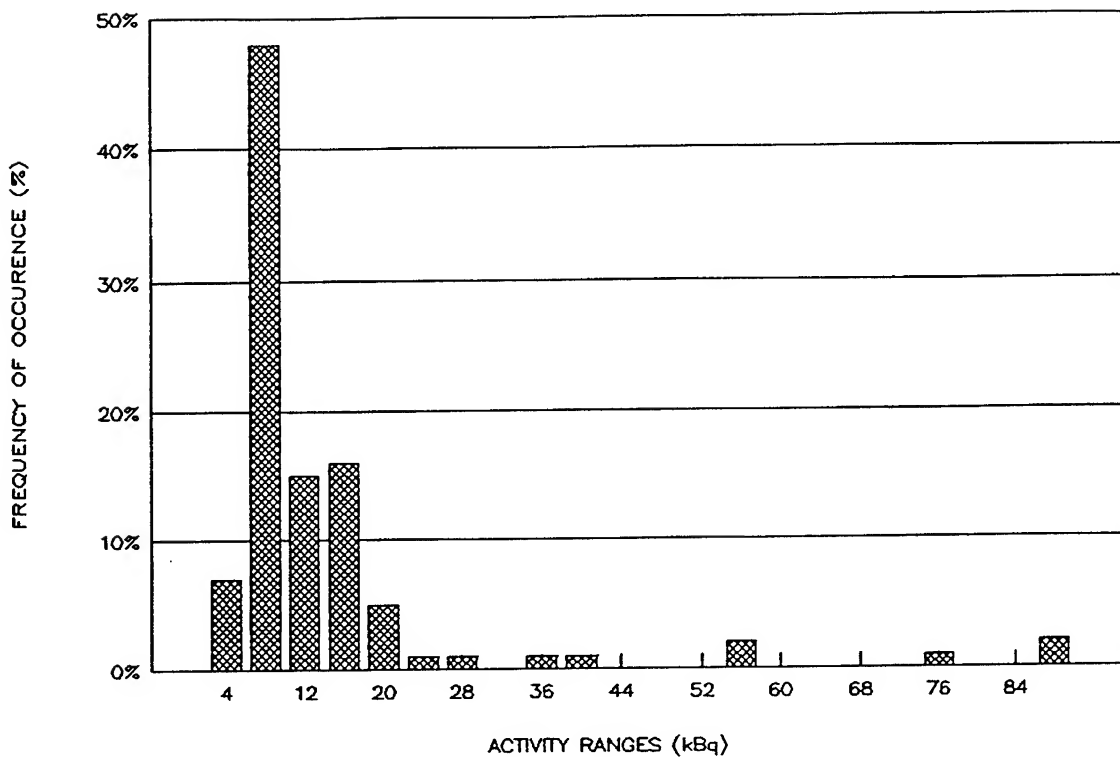
1-GATE SORTS		51	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%		ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	0	0.0%	-14000	0	-231	4000	7	7.0%	4
2	2	3.9%	-12000	0	-198	8000	48	48.0%	8
3	6	11.8%	-10000	1	-165	12000	15	15.0%	12
4	6	11.8%	-8000	1	-132	16000	16	16.0%	16
5	12	23.5%	-6000	0	-99	20000	5	5.0%	20
6	9	17.6%	-4000	1	-66	24000	1	1.0%	24
7	12	23.5%	-2000	3	-33	28000	1	1.0%	28
8	4	7.8%	0	7	0	32000	0	0.0%	32
TOTAL	51		2000	15	33	36000	1	1.0%	36
			4000	26	66	40000	1	1.0%	40
			6000	41	99	44000	0	0.0%	44
			8000	44	132	48000	0	0.0%	48
			10000	32	165	52000	0	0.0%	52
			12000	11	198	56000	2	2.0%	56
			14000	13	231	60000	0	0.0%	60
			16000	1	264	64000	0	0.0%	64
			18000	0	298	68000	0	0.0%	68
			20000	0	331	72000	0	0.0%	72
			22000	0	364	76000	1	1.0%	76
			24000	0	397	80000	0	0.0%	80
			26000	0	430	84000	0	0.0%	84
			>28000	0	0	>84000	2	2.0%	>84
			TOTAL	196		TOTAL	100		
SUMMARY TOTALS									
HOT PARTICLE EVENTS			105	SORTS BY ONE GATE ONLY			51		
MULTIPARTICLE EVENTS			40	SORTS BY TWO GATES			49		
DISTRIBUTED EVENTS			0						

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

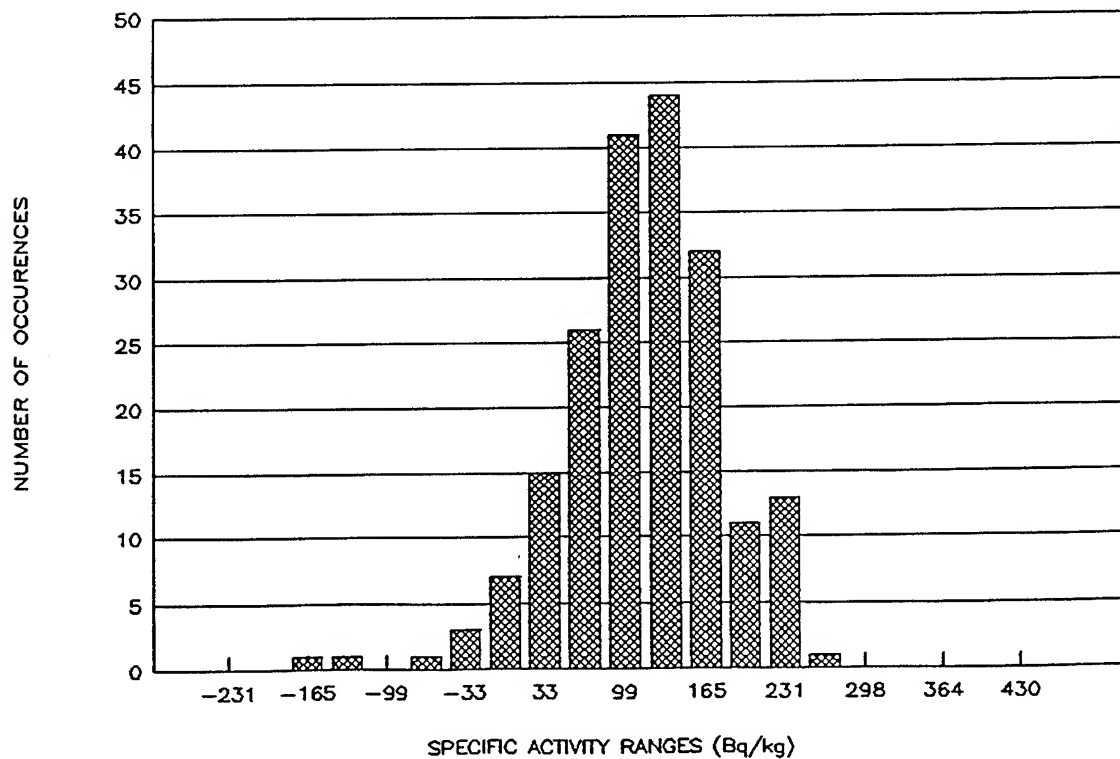
JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 24-Apr-93



CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 24-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 24-Apr-93

AVERAGE BACKGROUND COUNT RATE	0.76 ± 0.05 c/sec		
SORTER SOIL DENSITY	1.3 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	0.13 tons	11.3 tons	
MAXIMUM/SORT	5.3 kg	60.5 kg	
MINIMUM/SORT	0.8 kg	55.2 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			98.9%
EQUIVALENT SOIL-IN-GROUND	0.10 yd ³	9.0 yd ³	9.1 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	4,638 kBq		
MAXIMUM/SORT	1,394 kBq		
MINIMUM/SORT	3.7 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	1,400 kBq	906 kBq	
MINIMUM/SORT	674 kBq	16 kBq	
SPECIFIC ACTIVITY	0 Bq	-4 kBq	
	10,752 Bq/kg	80 Bq/kg	
WORK HISTORY			
WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	03:26 PM	PLANT SHUT-DOWN	04:31 PM
START SOIL PROCESSING	03:26 PM	END SOIL PROCESSING	04:29 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS	10.5 hr		
AVAILABLE HOURS	1.1 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	1.05 hr		
DOWN-TIME	0.03 hr		
TOTAL SYSTEM PAUSE	0.00 hr		
NONAVAILABLE HOURS	9.4 hr		
START-UP	0.01 hr		
SHUT-DOWN	0.03 hr		
PLANT PERFORMANCE	96.9%		
PRODUCTIVITY	10.0%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	309		
NONPROCESS RECORDS (Test, calibration, etc)	7		
20-SEC PROCESS RECORDS	189		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	116 AD=0 & MD=0 & MND>0		
SOME SORT	73 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0		UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	None	None
ACT_P <5 kBq	17 14.2%		

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 1,890
 2-SEC RECORDS WITH SORTS 120 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 24 80.0%
 3 DETECTORS 6 20.0%
 4 DETECTORS 0 0.0%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 30
 NET 2-SEC RECORDS WITH SORTS 90
 2-SEC PERIODS WITH NO SORTS 1,800
 AVG TIME BETWEEN 2-SEC SORTS 42.0 sec

1-GATE SORTS DETECTR	SORTS	63 FREQ%	ACT_ND (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT FREQ% (#)	ACT_P (kBq)
1	2	3.2%	-14000	0	-231	4000	6 5.0%	4
2	15	23.8%	-12000	0	-198	8000	50 41.7%	8
3	7	11.1%	-10000	3	-165	12000	18 15.0%	12
4	11	17.5%	-8000	2	-132	16000	10 8.3%	16
5	16	25.4%	-6000	0	-99	20000	5 4.2%	20
6	10	15.9%	-4000	1	-66	24000	6 5.0%	24
7	2	3.2%	-2000	8	-33	28000	6 5.0%	28
8	0	0.0%	0	18	0	32000	2 1.7%	32
TOTAL	63		2000	31	33	36000	0 0.0%	36
			4000	32	66	40000	1 0.8%	40
2-GATE SORTS		57	6000	27	99	44000	0 0.0%	44
DETECTR	SORTS	FREQ%	8000	28	132	48000	4 3.3%	48
8			10000	20	165	52000	2 1.7%	52
9	5	8.8%	12000	15	198	56000	1 0.8%	56
10	10	17.5%	14000	9	231	60000	1 0.8%	60
11	12	21.1%	16000	1	264	64000	1 0.8%	64
12	15	26.3%	18000	1	298	68000	0 0.0%	68
13	9	15.8%	20000	0	331	72000	1 0.8%	72
14	5	8.8%	22000	0	364	76000	0 0.0%	76
15	1	1.8%	24000	0	397	80000	0 0.0%	80
TOTAL	57		26000	0	430	84000	0 0.0%	84
			>28000	0	0	>84000	6 5.0%	>84
			TOTAL	196		TOTAL	120	

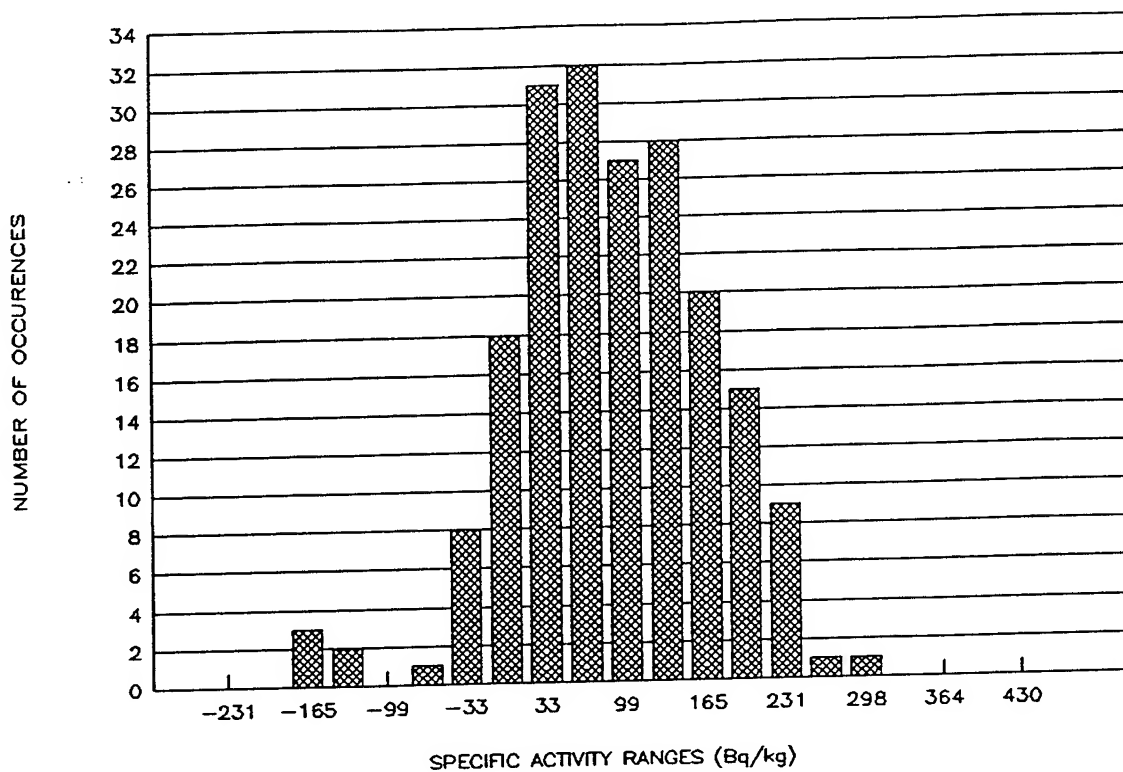
SUMMARY TOTALS

HOT PARTICLE EVENTS	117	SORTS BY ONE GATE ONLY	63
MULTIPARTICLE EVENTS	54	SORTS BY TWO GATES	57
DISTRIBUTED EVENTS	0		

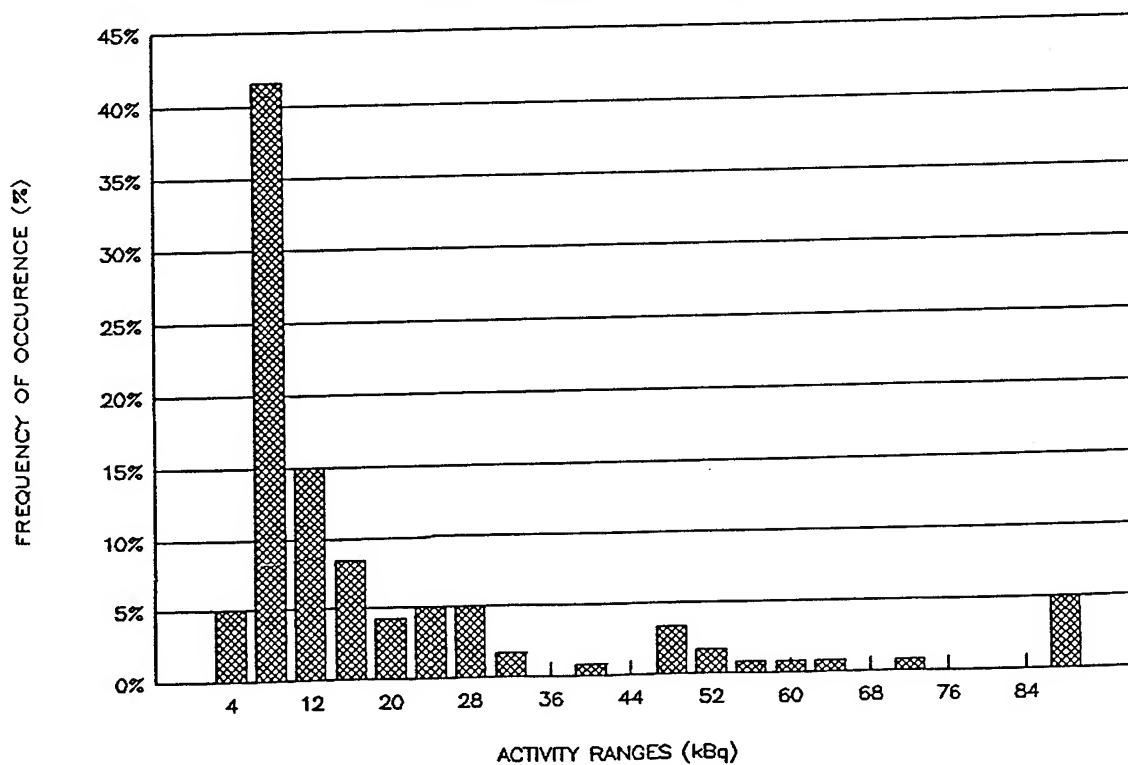
REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

SORTER 2 LOG DATA FOR 24-Apr-93



SORTER 2 LOG DATA FOR 24-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 23-Apr-93

AVERAGE BACKGROUND COUNT RATE 0.77 ± 0.05 c/sec
 SORTER SOIL DENSITY 1.3 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	1.17 tons	113.8 tons
MAXIMUM/SORT	60.5 kg	60.5 kg
MINIMUM/SORT	0.8 kg	54.5 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		99.0%
EQUIVALENT SOIL-IN-GROUND	0.93 yd³	90.2 yd³ 91.2 yd³/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	12,559 kBq
MAXIMUM/SORT	605 kBq
MINIMUM/SORT	2.3 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	5,689 kBq	6,619 kBq
MAXIMUM/SORT	415 kBq	20 kBq
MINIMUM/SORT	0 Bq	-11 kBq
SPECIFIC ACTIVITY	4,866 Bq/kg	58 Bq/kg

WORK HISTORY

WORK DAY START	05:56 AM	WORK DAY END	05:30 PM
PLANT START-UP	05:56 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:25 AM	END SOIL PROCESSING	04:58 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.6 hr
AVAILABLE HOURS	11.6 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.56 hr
DOWN-TIME	1.01 hr
TOTAL SYSTEM PAUSE	0.47 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.49 hr
SHUT-DOWN	0.53 hr
PLANT PERFORMANCE	91.3%
PRODUCTIVITY	91.3%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,860
NONPROCESS RECORDS (Test, calibration, etc)	7

20-SEC PROCESS RECORDS	1,900
TOTAL SORT	1 MD>0 & MND=0
NO SORT	1,178 AD=0 & MD=0 & MND>0
SOME SORT	721 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	2
AD=0 & MD	0
AD<0 & MD	0
ACT_P <5 kBq	317 33.0%

UNEXPLAIN	PAUSE
TIME	TIME
11:12:18	05:57
16:11:58	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 19,000
 2-SEC RECORDS WITH SORTS 960 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 218 85.5%
 3 DETECTORS 33 12.9%
 4 DETECTORS 4 1.6%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 255
 NET 2-SEC RECORDS WITH SORTS 705
 2-SEC PERIODS WITH NO SORTS 18,295
 AVG TIME BETWEEN 2-SEC SORTS 53.9 sec

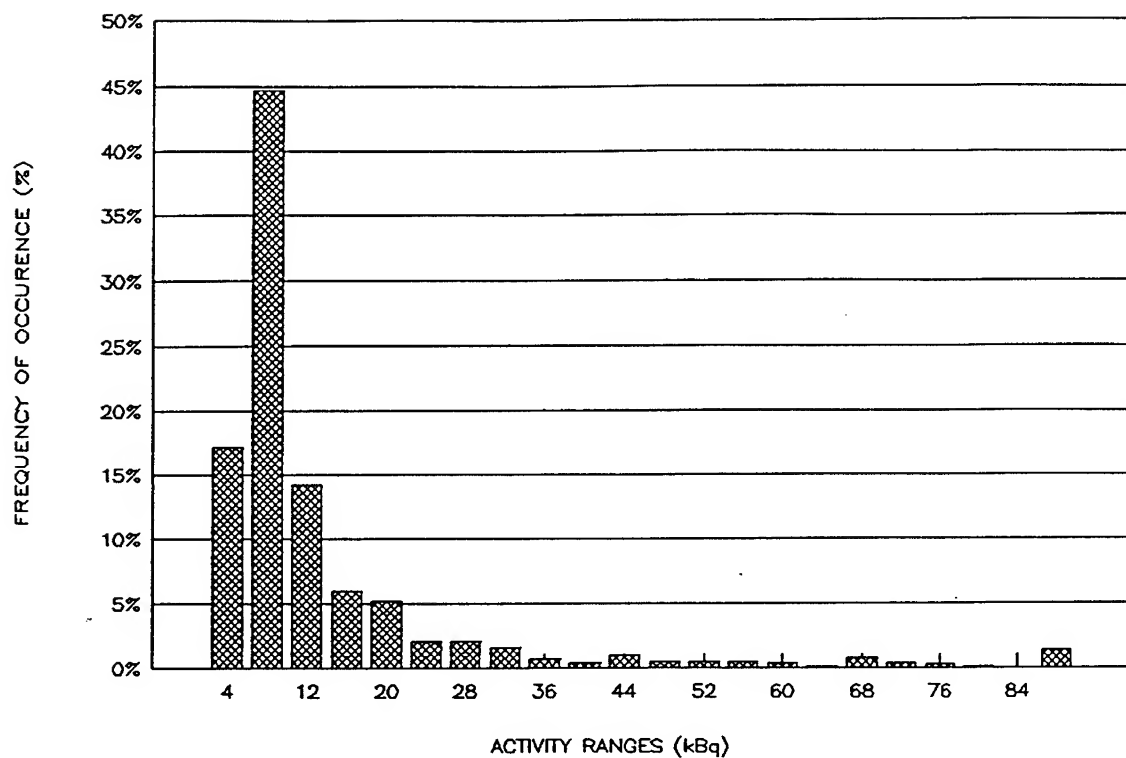
1-GATE SORTS DETECTR	SORTS	477 FREQ%	ACT_NO (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT FREQ% (#)	ACT_P (kBq)
1	13	2.7%	-14000	1	-231	4000	165 17.2%	4
2	52	10.9%	-12000	2	-198	8000	429 44.7%	8
3	76	15.9%	-10000	4	-165	12000	137 14.3%	12
4	74	15.5%	-8000	0	-132	16000	57 5.9%	16
5	90	18.9%	-6000	4	-99	20000	50 5.2%	20
6	90	18.9%	-4000	18	-66	24000	20 2.1%	24
7	67	14.0%	-2000	69	-33	28000	20 2.1%	28
8	15	3.1%	0	199	0	32000	15 1.6%	32
TOTAL	477		2000	349	33	36000	6 0.6%	36
			4000	439	66	40000	4 0.4%	40
			6000	411	99	44000	9 0.9%	44
2-GATE SORTS		483	8000	222	132	48000	5 0.5%	48
DETECTR	SORTS	FREQ%	10000	128	165	52000	5 0.5%	52
8			12000	45	198	56000	5 0.5%	56
9	41	8.5%	14000	14	231	60000	4 0.4%	60
10	70	14.5%	16000	1	264	64000	1 0.1%	64
11	78	16.1%	18000	0	298	68000	7 0.7%	68
12	92	19.0%	20000	1	331	72000	4 0.4%	72
13	94	19.5%	22000	0	364	76000	3 0.3%	76
14	69	14.3%	24000	0	397	80000	1 0.1%	80
15	39	8.1%	26000	0	430	84000	0 0.0%	84
TOTAL	483		>28000	0	0	>84000	13 1.4%	>84
			TOTAL	1907		TOTAL	960	

SUMMARY TOTALS
 HOT PARTICLE EVENTS 988 SORTS BY ONE GATE ONLY 477
 MULTIPARTICLE EVENTS 462 SORTS BY TWO GATES 483
 DISTRIBUTED EVENTS 80

REC CODE EXPLANATION
 1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

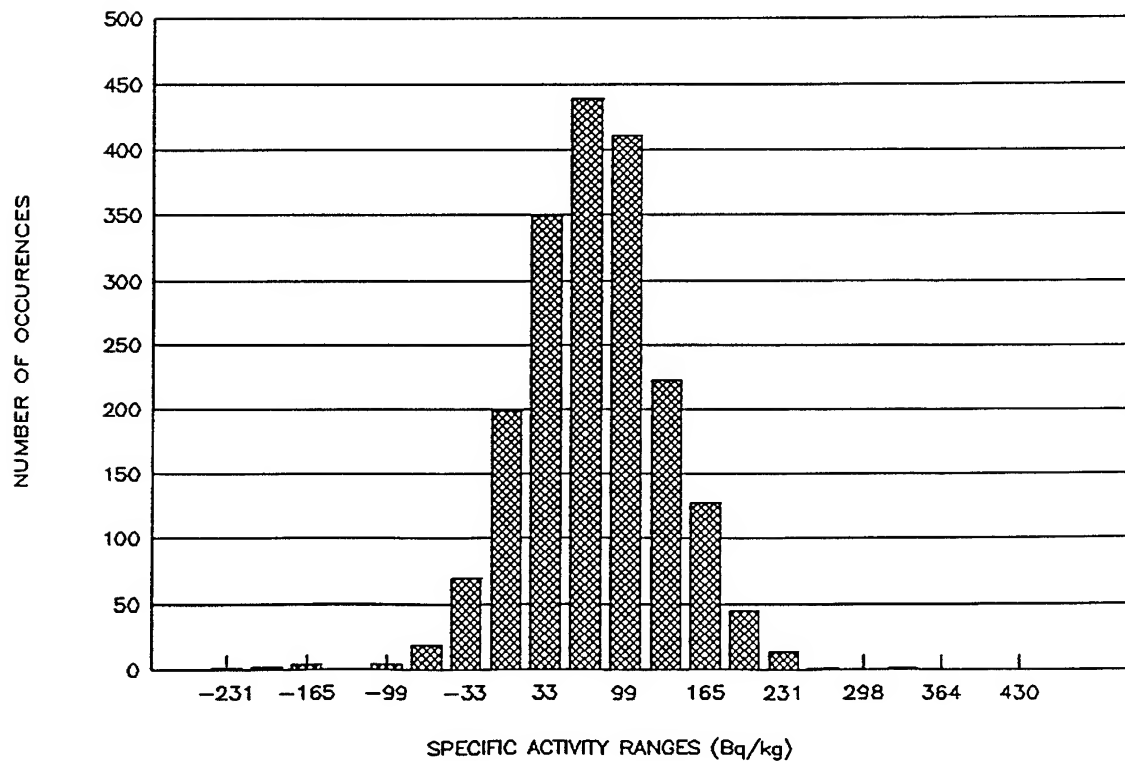
JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 23-Apr-93



CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 23-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 23-Apr-93

AVERAGE BACKGROUND COUNT RATE	0.80 ± 0.03 c/sec		
SORTER SOIL DENSITY	1.3 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	1.19 tons	113.7 tons	
MAXIMUM/SORT	60.5 kg	60.5 kg	
MINIMUM/SORT	0.8 kg	53.7 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.0%
EQUIVALENT SOIL-IN-GROUND	0.95 yd ³	90.2 yd ³	91.1 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	14,603 kBq		
MAXIMUM/SORT	634 kBq		
MINIMUM/SORT	2.2 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	6,796 kBq	5,741 kBq	
MINIMUM/SORT	425 kBq	18 kBq	
SPECIFIC ACTIVITY	0 Bq	-17 kBq	
	5,690 Bq/kg	50 Bq/kg	
WORK HISTORY			
WORK DAY START	05:56 AM	WORK DAY END	05:30 PM
PLANT START-UP	05:56 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:25 AM	END SOIL PROCESSING	04:57 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS	11.6 hr		
AVAILABLE HOURS	11.6 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	10.55 hr		
DOWN-TIME	1.02 hr		
TOTAL SYSTEM PAUSE	0.47 hr		
NONAVAILABLE HOURS	0.0 hr		
START-UP	0.49 hr		
SHUT-DOWN	0.53 hr		
PLANT PERFORMANCE	91.2%		
PRODUCTIVITY	91.2%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,898		
NONPROCESS RECORDS (Test, calibration, etc)	8		
20-SEC PROCESS RECORDS	1,899		
TOTAL SORT	1 MD>0 & MND=0		
NO SORT	1,181 AD=0 & MD=0 & MND>0		
SOME SORT	717 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0		UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	09:31:38	05:57
ACT_P <5 kBq	298 29.8%		

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 18,990
 2-SEC RECORDS WITH SORTS 999 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 212 82.8%
 3 DETECTORS 39 15.2%
 4 DETECTORS 4 1.6%
 5 DETECTORS 1 0.4%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 256
 NET 2-SEC RECORDS WITH SORTS 743
 2-SEC PERIODS WITH NO SORTS 18,247
 AVG TIME BETWEEN 2-SEC SORTS 51.1 sec

1-GATE SORTS	529	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	15	2.8%	-14000	8	-231	4000	145	14.5%
2	73	13.8%	-12000	1	-198	8000	418	41.8%
3	98	18.5%	-10000	2	-165	12000	156	15.6%
4	99	18.7%	-8000	3	-132	16000	74	7.4%
5	113	21.4%	-6000	12	-99	20000	49	4.9%
6	90	17.0%	-4000	34	-66	24000	34	3.4%
7	36	6.8%	-2000	90	-33	28000	17	1.7%
8	5	0.9%	0	239	0	32000	15	1.5%
TOTAL	529		2000	367	33	36000	11	1.1%
			4000	410	66	40000	10	1.0%
2-GATE SORTS	470		6000	366	99	44000	12	1.2%
DETECTR	SORTS	FREQ%	8000	190	132	48000	7	0.7%
8			10000	112	165	52000	8	0.8%
9	34	7.2%	12000	56	198	56000	4	0.4%
10	72	15.3%	14000	12	231	60000	6	0.6%
11	88	18.7%	16000	4	264	64000	6	0.6%
12	98	20.9%	18000	0	298	68000	2	0.2%
13	93	19.8%	20000	1	331	72000	1	0.1%
14	68	14.5%	22000	0	364	76000	2	0.2%
15	17	3.6%	24000	0	397	80000	1	0.1%
TOTAL	470		26000	0	430	84000	1	0.1%
			>28000	0	0	>84000	20	2.0%
			TOTAL	1907		TOTAL	999	

SUMMARY TOTALS

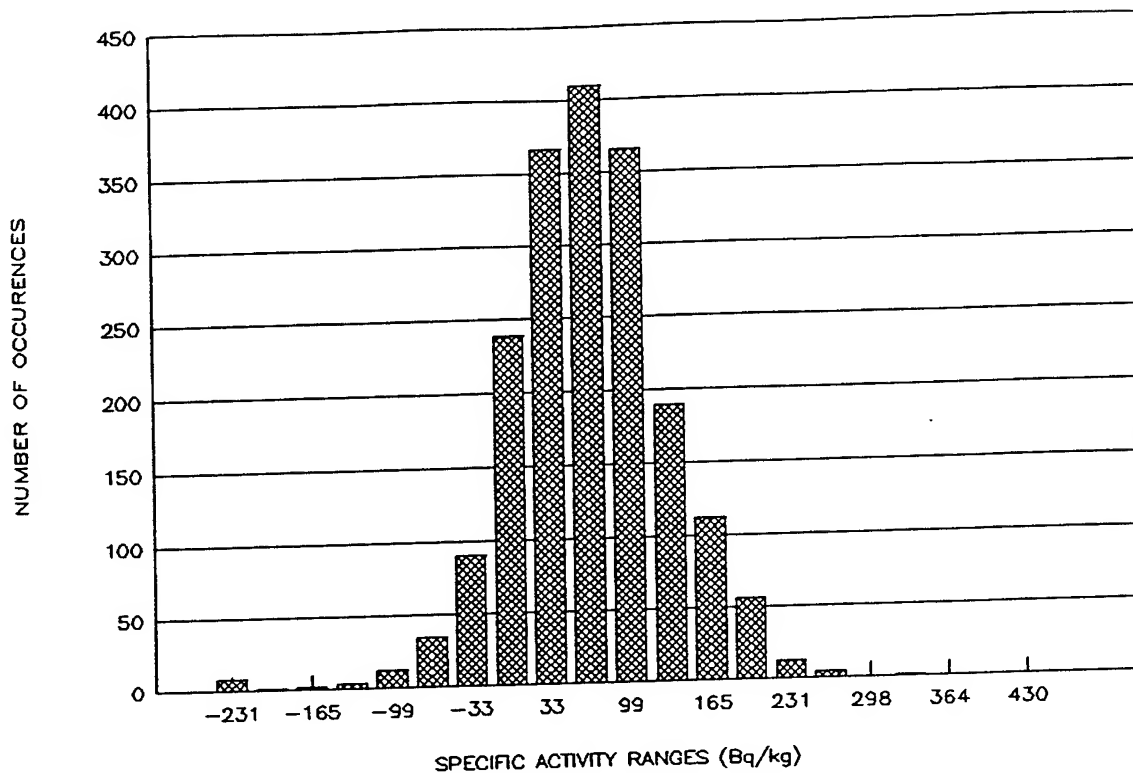
HOT PARTICLE EVENTS	987	SORTS BY ONE GATE ONLY	529
MULTIPARTICLE EVENTS	497	SORTS BY TWO GATES	470
DISTRIBUTED EVENTS	77		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

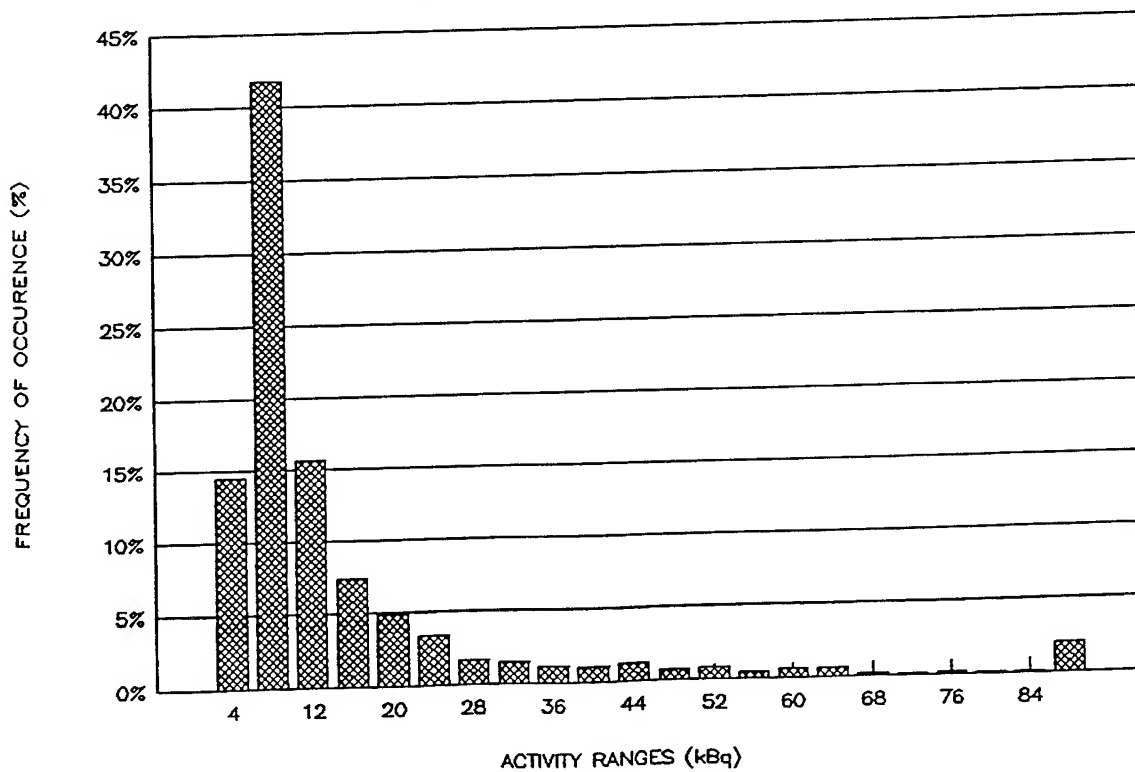
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 23-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 23-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 22-Apr-93

AVERAGE BACKGROUND COUNT RATE 0.76 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.3 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN	
MASS TOTAL	1.13 tons	112.4 tons	
MAXIMUM/SORT	60.5 kg	60.5 kg	
MINIMUM/SORT	0.8 kg	52.2 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.0%
EQUIVALENT SOIL-IN-GROUND	0.89 yd ³	89.1 yd ³	90.0 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	16,094 kBq
MAXIMUM/SORT	1,038 kBq
MINIMUM/SORT	2.2 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

	7,422 kBq	6,385 kBq
MAXIMUM/SORT	785 kBq	16 kBq
MINIMUM/SORT	0 Bq	-7 kBq
SPECIFIC ACTIVITY	6,582 Bq/kg	57 Bq/kg

WORK HISTORY

WORK DAY START	05:56 AM	WORK DAY END	05:30 PM
PLANT START-UP	05:56 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:33 AM	END SOIL PROCESSING	04:58 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.6 hr
AVAILABLE HOURS	11.6 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.42 hr
DOWN-TIME	1.14 hr
TOTAL SYSTEM PAUSE	0.60 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.62 hr
SHUT-DOWN	0.53 hr
PLANT PERFORMANCE	90.1%
PRODUCTIVITY	90.1%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)

NONPROCESS RECORDS (Test, calibration, etc)

20-SEC PROCESS RECORDS

TOTAL SORT	1 MD>0 & MND=0
NO SORT	1,218 AD=0 & MD=0 & MND>0
SOME SORT	657 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0

0<AD<1kBq & MD>0	1
AD=0 & MD	0
AD<0 & MD	0

ACT_P <5 kBq	297	31.2%
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UNEXPLAIN	PAUSE
TIME	TIME
10:46:26	05:57

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 18,760
 2-SEC RECORDS WITH SORTS 952 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 201 86.6%
 3 DETECTORS 28 12.1%
 4 DETECTORS 3 1.3%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 232
 NET 2-SEC RECORDS WITH SORTS 720
 2-SEC PERIODS WITH NO SORTS 18,040
 AVG TIME BETWEEN 2-SEC SORTS 52.1 sec

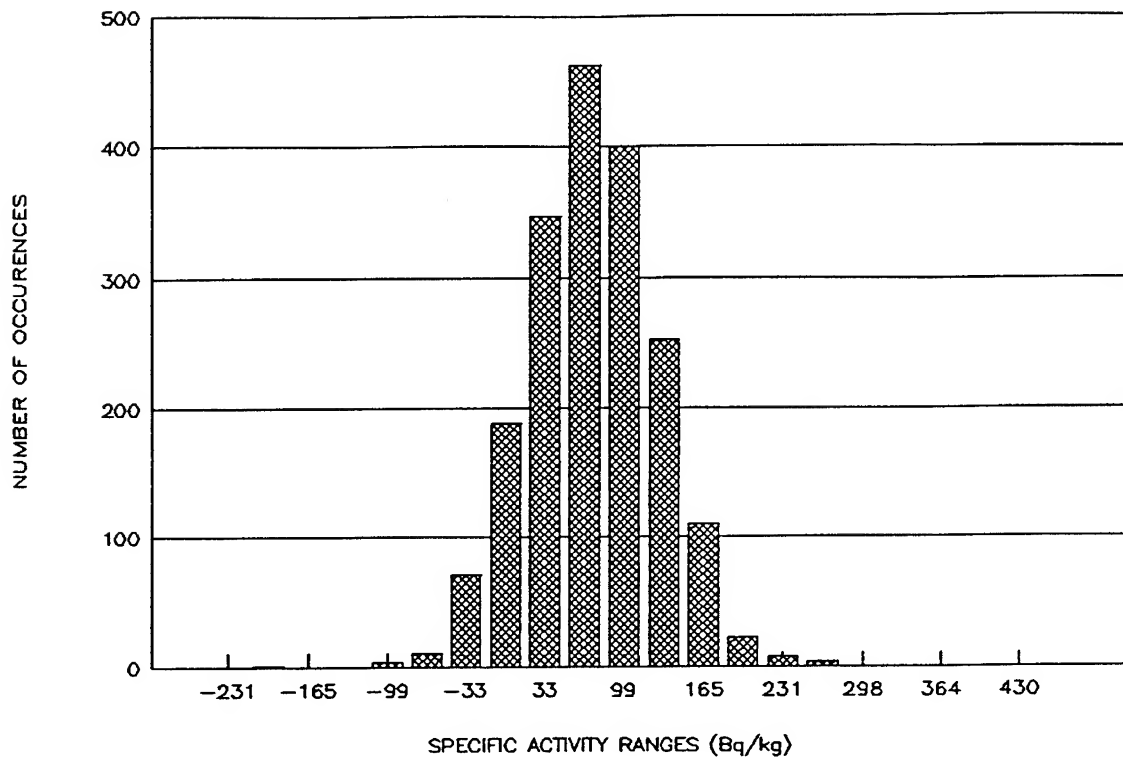
1-GATE SORTS DETECTR	473 SORTS	ACT_ND FREQ%	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT FREQ%	ACT_P (kBq)
1	14	3.0%	-14000	0	-231	4000	155 16.3%
2	50	10.6%	-12000	1	-198	8000	374 39.3%
3	73	15.4%	-10000	0	-165	12000	134 14.1%
4	81	17.1%	-8000	0	-132	16000	69 7.2%
5	100	21.1%	-6000	4	-99	20000	40 4.2%
6	81	17.1%	-4000	11	-66	24000	30 3.2%
7	57	12.1%	-2000	71	-33	28000	23 2.4%
8	17	3.6%	0	188	0	32000	24 2.5%
TOTAL	473		2000	346	33	36000	14 1.5%
			4000	462	66	40000	15 1.6%
			6000	400	99	44000	11 1.2%
2-GATE SORTS	479		8000	253	132	48000	11 1.2%
DETECTR	SORTS	FREQ%	10000	110	165	52000	3 0.3%
8			12000	22	198	56000	7 0.7%
9	22	4.6%	14000	8	231	60000	4 0.4%
10	66	13.8%	16000	4	264	64000	4 0.4%
11	74	15.4%	18000	0	298	68000	3 0.3%
12	101	21.1%	20000	0	331	72000	1 0.1%
13	98	20.5%	22000	0	364	76000	1 0.1%
14	77	16.1%	24000	0	397	80000	3 0.3%
15	41	8.6%	26000	0	430	84000	0 0.0%
TOTAL	479		>28000	0	0	>84000	26 2.7%
			TOTAL	1880		TOTAL	952
SUMMARY TOTALS							
HOT PARTICLE EVENTS		968			SORTS BY ONE GATE ONLY	473	
MULTIPARTICLE EVENTS		431			SORTS BY TWO GATES	479	
DISTRIBUTED EVENTS		80					

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

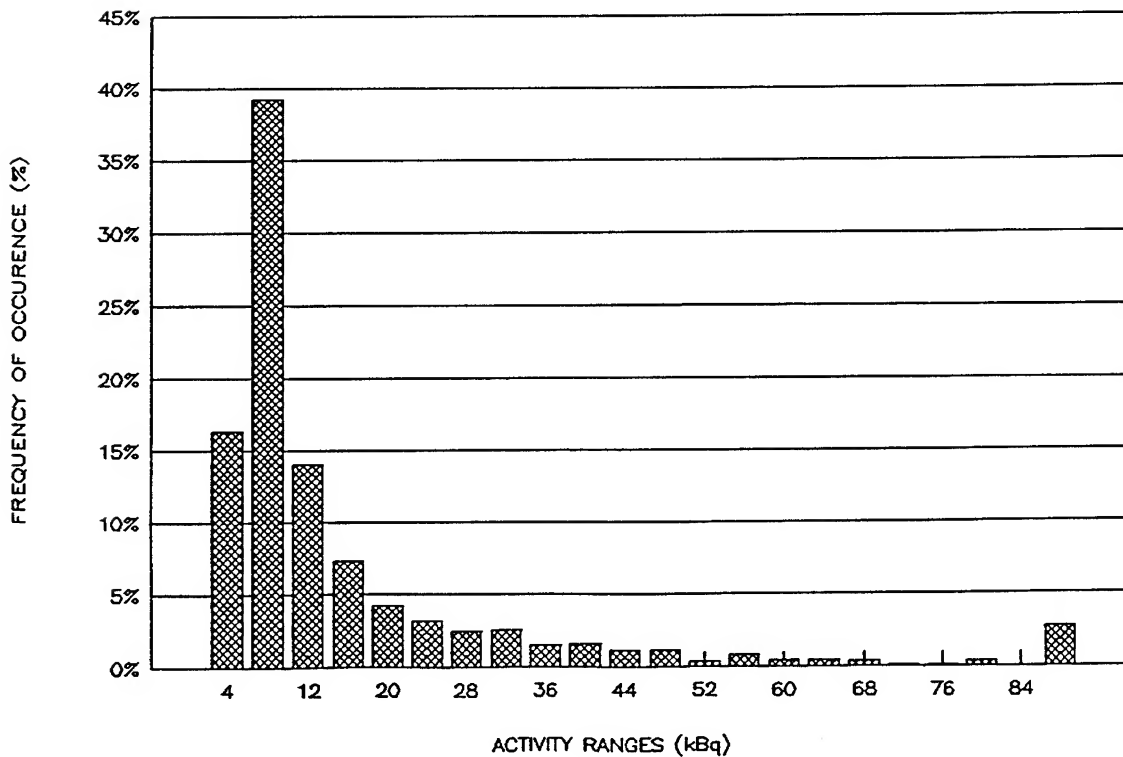
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 22-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 22-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 22-Apr-93

AVERAGE BACKGROUND COUNT RATE	0.80 ± 0.02 c/sec		
SORTER SOIL DENSITY	1.3 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		1.15 tons	112.2 tons
MAXIMUM/SORT		5.3 kg	60.5 kg
MINIMUM/SORT		0.8 kg	55.2 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			99.0%
EQUIVALENT SOIL-IN-GROUND	0.91 yd ³	88.9 yd ³	89.9 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	17,883 kBq		
MAXIMUM/SORT	599 kBq		
MINIMUM/SORT	2.8 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	7,973 kBq	6,425 kBq	
MINIMUM/SORT	464 kBq	17 kBq	
SPECIFIC ACTIVITY	0 Bq	-8 kBq	
	6,938 Bq/kg	57 Bq/kg	
WORK HISTORY			
WORK DAY START	05:56 AM	WORK DAY END	05:30 PM
PLANT START-UP	05:56 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:33 AM	END SOIL PROCESSING	04:58 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS		11.6 hr	
AVAILABLE HOURS		11.6 hr	
ACTUAL PROCESS HOURS (total 20-sec records)		10.41 hr	
DOWN-TIME		1.16 hr	
TOTAL SYSTEM PAUSE		0.60 hr	
NONAVAILABLE HOURS		0.0 hr	
START-UP		0.63 hr	
SHUT-DOWN		0.53 hr	
PLANT PERFORMANCE		90.0%	
PRODUCTIVITY		90.0%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)		2,899	
NONPROCESS RECORDS (Test, calibration, etc)		7	
20-SEC PROCESS RECORDS		1,873	
TOTAL SORT		0 MD>0 & MND=0	
NO SORT		1,154 AD=0 & MD=0 & MND>0	
SOME SORT		719 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS		0	
0<AD<1kBq & MD>0	2		UNEXPLAIN PAUSE
AD=0 & MD	0		TIME TIME
AD<0 & MD	0		10:41:07 05:57
ACT_P <5 kBq	288 28.1%		12:10:07

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 18,730
 2-SEC RECORDS WITH SORTS 1,026 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 221 83.7%
 3 DETECTORS 38 14.4%
 4 DETECTORS 5 1.9%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 264
 NET 2-SEC RECORDS WITH SORTS 762
 2-SEC PERIODS WITH NO SORTS 17,968
 AVG TIME BETWEEN 2-SEC SORTS 49.2 sec

1-GATE SORTS		535	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQX		ACT_P
DETECTR	SORTS	FREQX	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	16	3.0%	-14000	0	-231	4000	125	12.2%	4
2	58	10.8%	-12000	2	-198	8000	435	42.4%	8
3	95	17.8%	-10000	0	-165	12000	155	15.1%	12
4	112	20.9%	-8000	1	-132	16000	72	7.0%	16
5	113	21.1%	-6000	3	-99	20000	52	5.1%	20
6	84	15.7%	-4000	20	-66	24000	33	3.2%	24
7	50	9.3%	-2000	71	-33	28000	18	1.8%	28
8	7	1.3%	0	203	0	32000	20	1.9%	32
TOTAL	535		2000	376	33	36000	17	1.7%	36
			4000	419	66	40000	12	1.2%	40
			6000	362	99	44000	9	0.9%	44
2-GATE SORTS		491	8000	247	132	48000	6	0.6%	48
DETECTR	SORTS	FREQX				52000	6	0.6%	52
8			10000	99	165	56000	5	0.5%	56
9	32	6.5%	12000	46	198	60000	7	0.7%	60
10	63	12.8%	14000	23	231	64000	6	0.6%	64
11	89	18.1%	16000	6	264	68000	5	0.5%	68
12	108	22.0%	18000	2	298	72000	8	0.8%	72
13	105	21.4%	20000	0	331	76000	2	0.2%	76
14	70	14.3%	22000	0	364	80000	3	0.3%	80
15	24	4.9%	24000	0	397	84000	0	0.0%	84
TOTAL	491		26000	0	430				
			>28000	0	0	>84000	30	2.9%	>84
			TOTAL	1880		TOTAL	1026		

SUMMARY TOTALS

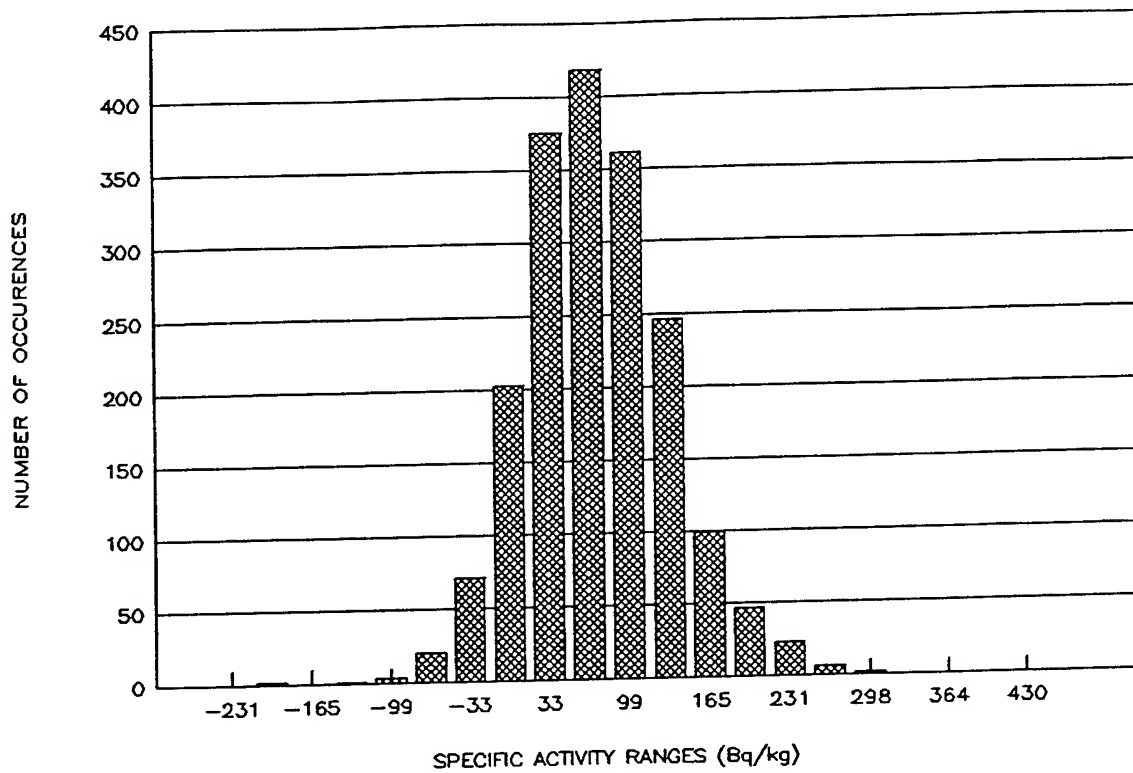
HOT PARTICLE EVENTS	1008	SORTS BY ONE GATE ONLY	535
MULTIPARTICLE EVENTS	496	SORTS BY TWO GATES	491
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

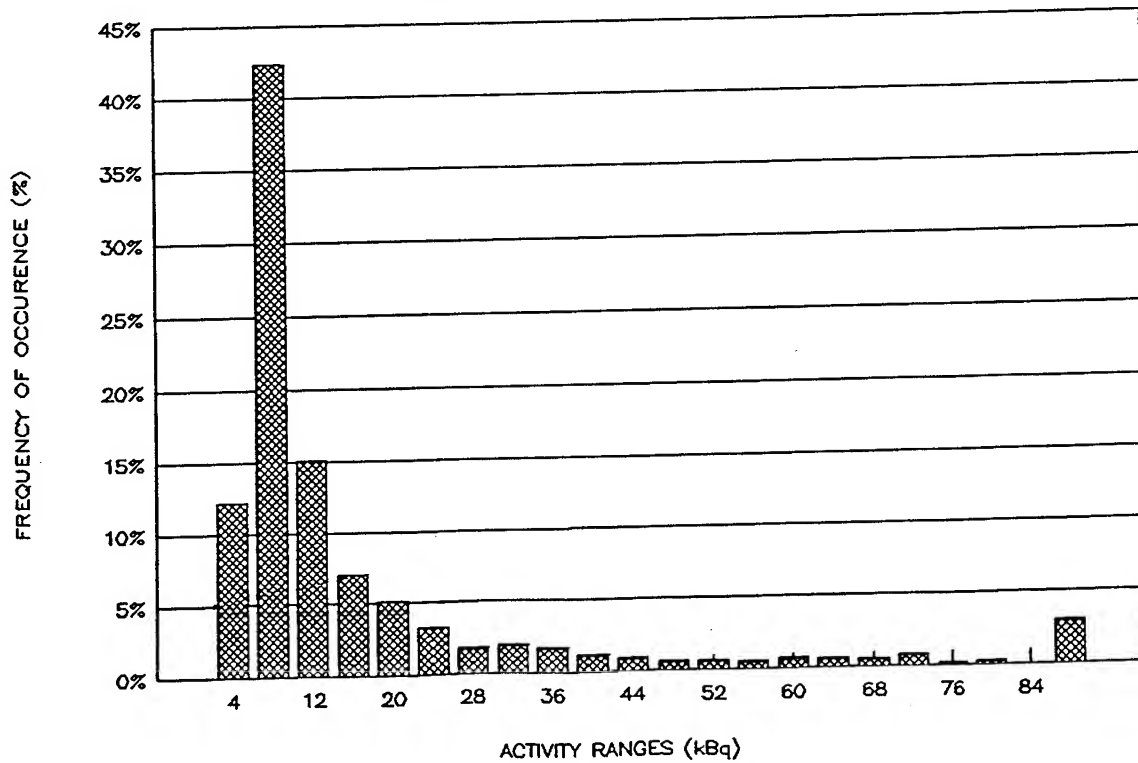
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 22-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 22-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 21-Apr-93

AVERAGE BACKGROUND COUNT RATE 0.77 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.3 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN	
MASS TOTAL	1.14 tons	114.9 tons	
MAXIMUM/SORT	7.6 kg	60.5 kg	
MINIMUM/SORT	0.8 kg	53 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.0%
EQUIVALENT SOIL-IN-GROUND	0.90 yd ³	91.1 yd ³	92.0 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	15,028 kBq
MAXIMUM/SORT	410 kBq
MINIMUM/SORT	2.4 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

	6,423 kBq	6,082 kBq
MAXIMUM/SORT	234 kBq	14 kBq
MINIMUM/SORT	0 Bq	-9 kBq
SPECIFIC ACTIVITY	5,656 Bq/kg	53 Bq/kg

WORK HISTORY

WORK DAY START	05:54 AM	WORK DAY END	05:30 PM
PLANT START-UP	05:54 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:14 AM	END SOIL PROCESSING	04:57 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.6 hr
AVAILABLE HOURS	11.6 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.65 hr
DOWN-TIME	0.95 hr
TOTAL SYSTEM PAUSE	0.40 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.34 hr
SHUT-DOWN	0.53 hr
PLANT PERFORMANCE	91.8%
PRODUCTIVITY	91.8%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)

NONPROCESS RECORDS (Test, calibration, etc)

20-SEC PROCESS RECORDS

TOTAL SORT	0 MD>0 & MND=0
NO SORT	1,224 AD=0 & MD=0 & MND>0
SOME SORT	693 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	4
AD=0 & MD	0
AD<0 & MD	0
ACT_P <5 kBq	288 27.1%

UNEXPLAIN	PAUSE
TIME	TIME
07:03:39	05:54
11:24:14	08:13

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 19,170 13:07:54 10:33
 2-SEC RECORDS WITH SORTS 1,061 (ACT_P >0 kBq) 14:37:34
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 246 90.1%
 3 DETECTORS 23 8.4%
 4 DETECTORS 4 1.5%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 273
 NET 2-SEC RECORDS WITH SORTS 788
 2-SEC PERIODS WITH NO SORTS 18,382
 AVG TIME BETWEEN 2-SEC SORTS 48.7 sec

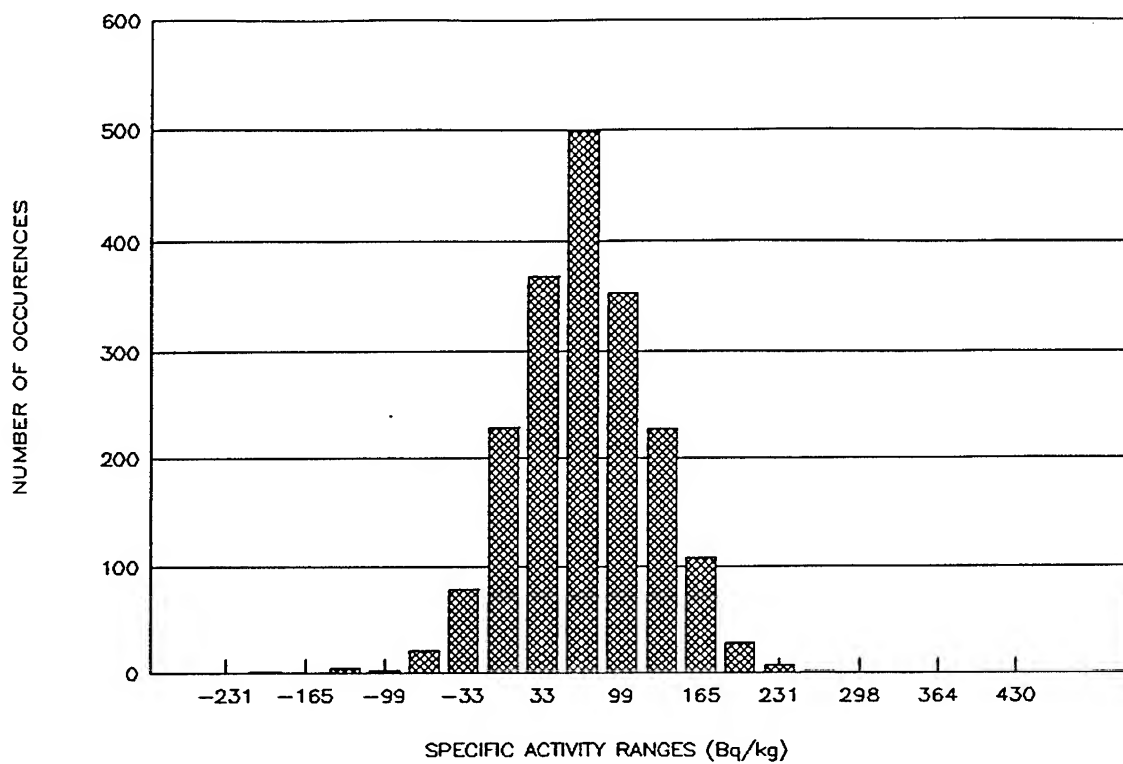
1-GATE SORTS		529	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQX		ACT_P
DETECTR	SORTS	FREQX	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	14	2.6%	-14000	0	-231	4000	155	14.6%	4
2	58	11.0%	-12000	1	-198	8000	439	41.4%	8
3	78	14.7%	-10000	0	-165	12000	143	13.5%	12
4	93	17.6%	-8000	5	-132	16000	95	9.0%	16
5	107	20.2%	-6000	2	-99	20000	51	4.8%	20
6	87	16.4%	-4000	21	-66	24000	43	4.1%	24
7	67	12.7%	-2000	78	-33	28000	34	3.2%	28
8	25	4.7%	0	228	0	32000	21	2.0%	32
TOTAL	529		2000	369	33	36000	15	1.4%	36
			4000	499	66	40000	6	0.6%	40
			6000	354	99	44000	6	0.6%	44
2-GATE SORTS		532	8000	227	132	48000	5	0.5%	48
DETECTR	SORTS	FREQX				52000	5	0.5%	52
8			10000	107	165	56000	6	0.6%	56
9	35	6.6%	12000	28	198	60000	5	0.5%	60
10	78	14.7%	14000	7	231	64000	6	0.6%	64
11	99	18.6%	16000	1	264	68000	5	0.5%	68
12	82	15.4%	18000	0	298	72000	1	0.1%	72
13	107	20.1%	20000	0	331	76000	1	0.1%	76
14	82	15.4%	22000	0	364	80000	0	0.0%	80
15	49	9.2%	24000	0	397	84000	2	0.2%	84
TOTAL	532		26000	0	430	>84000	17	1.6%	>84
			>28000	0	0				
			TOTAL	1927		TOTAL	1061		

SUMMARY TOTALS
 HOT PARTICLE EVENTS 1054 SORTS BY ONE GATE ONLY 529
 MULTIPARTICLE EVENTS 434 SORTS BY TWO GATES 532
 DISTRIBUTED EVENTS 0

REC CODE EXPLANATION
 1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

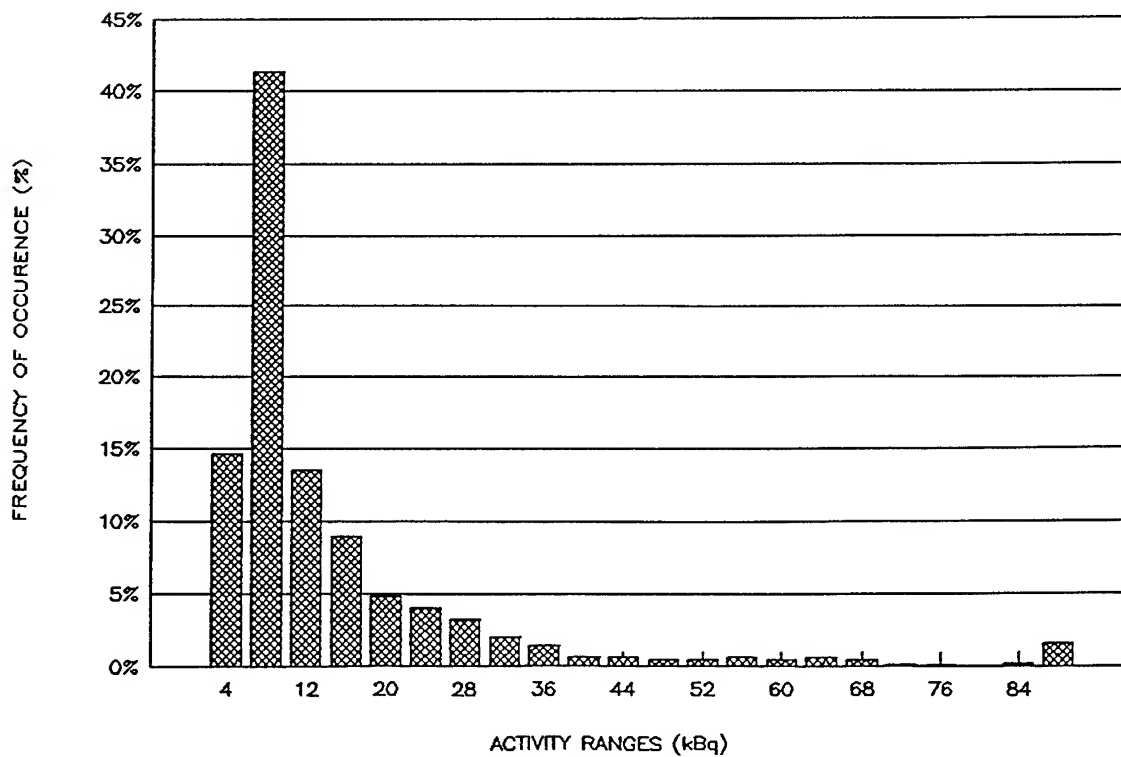
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 21-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 21-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 21-Apr-93

AVERAGE BACKGROUND COUNT RATE	0.80 ± 0.02 c/sec		
SORTER SOIL DENSITY	1.3 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	1.12 tons	115.3 tons	
MAXIMUM/SORT	5.3 kg	60.5 kg	
MINIMUM/SORT	0.8 kg	55.2 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.0%
EQUIVALENT SOIL-IN-GROUND	0.89 yd ³	91.4 yd ³	92.3 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	15,557 kBq		
MAXIMUM/SORT	477 kBq		
MINIMUM/SORT	2.3 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	6,874 kBq	6,229 kBq	
MINIMUM/SORT	407 kBq	16 kBq	
SPECIFIC ACTIVITY	0 Bq	-10 kBq	
	6,144 Bq/kg	54 Bq/kg	
WORK HISTORY			
WORK DAY START	05:54 AM	WORK DAY END	05:30 PM
PLANT START-UP	05:54 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:16 AM	END SOIL PROCESSING	04:57 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS		11.6 hr	
AVAILABLE HOURS		11.6 hr	
ACTUAL PROCESS HOURS (total 20-sec records)		10.69 hr	
DOWN-TIME		0.91 hr	
TOTAL SYSTEM PAUSE		0.33 hr	
NONAVAILABLE HOURS		0.0 hr	
START-UP		0.37 hr	
SHUT-DOWN		0.55 hr	
PLANT PERFORMANCE		92.1%	
PRODUCTIVITY		92.1%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)		2,888	
NONPROCESS RECORDS (Test, calibration, etc)		13	
20-SEC PROCESS RECORDS		1,924	
TOTAL SORT		0 MD>0 & MND=0	
NO SORT		1,198 AD=0 & MD=0 & MND>0	
SOME SORT		726 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS		0	
0<AD<1kBq & MD>0	3		UNEXPLAIN PAUSE
AD=0 & MD	0		TIME TIME
AD<0 & MD	0		07:27:20 05:54
ACT_P <5 kBq	289 30.0%		07:50:00

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	19,240	12:10:40
2-SEC RECORDS WITH SORTS	964 (ACT_P >0 kBq)	
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		
2 DETECTORS	189	85.1%
3 DETECTORS	29	13.1%
4 DETECTORS	4	1.8%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	222	
NET 2-SEC RECORDS WITH SORTS	742	
2-SEC PERIODS WITH NO SORTS	18,498	
AVG TIME BETWEEN 2-SEC SORTS	51.9 sec	

1-GATE SORTS	491	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	10	2.0%	-14000	3	-231	4000	131	13.6%
2	68	13.8%	-12000	3	-198	8000	417	43.3%
3	91	18.5%	-10000	2	-165	12000	145	15.0%
4	102	20.8%	-8000	3	-132	16000	77	8.0%
5	92	18.7%	-6000	5	-99	20000	37	3.8%
6	75	15.3%	-4000	24	-66	24000	21	2.2%
7	43	8.8%	-2000	91	-33	28000	26	2.7%
8	10	2.0%	0	207	0	32000	15	1.6%
TOTAL	491		2000	369	33	36000	12	1.2%
			4000	449	66	40000	10	1.0%
2-GATE SORTS	473	6000	391	99	44000	5	0.5%	44
DETECTR	SORTS	FREQ%	8000	233	132	48000	13	1.3%
8			10000	91	165	52000	2	0.2%
9	22	4.7%	12000	43	198	56000	9	0.9%
10	71	15.0%	14000	20	231	60000	11	1.1%
11	116	24.5%	16000	2	264	64000	3	0.3%
12	92	19.5%	18000	1	298	68000	1	0.1%
13	91	19.2%	20000	0	331	72000	2	0.2%
14	61	12.9%	22000	0	364	76000	2	0.2%
15	20	4.2%	24000	0	397	80000	1	0.1%
TOTAL	473		26000	0	430	84000	3	0.3%
			>28000	0	0	>84000	21	2.2%
			TOTAL	1937		TOTAL	964	

SUMMARY TOTALS

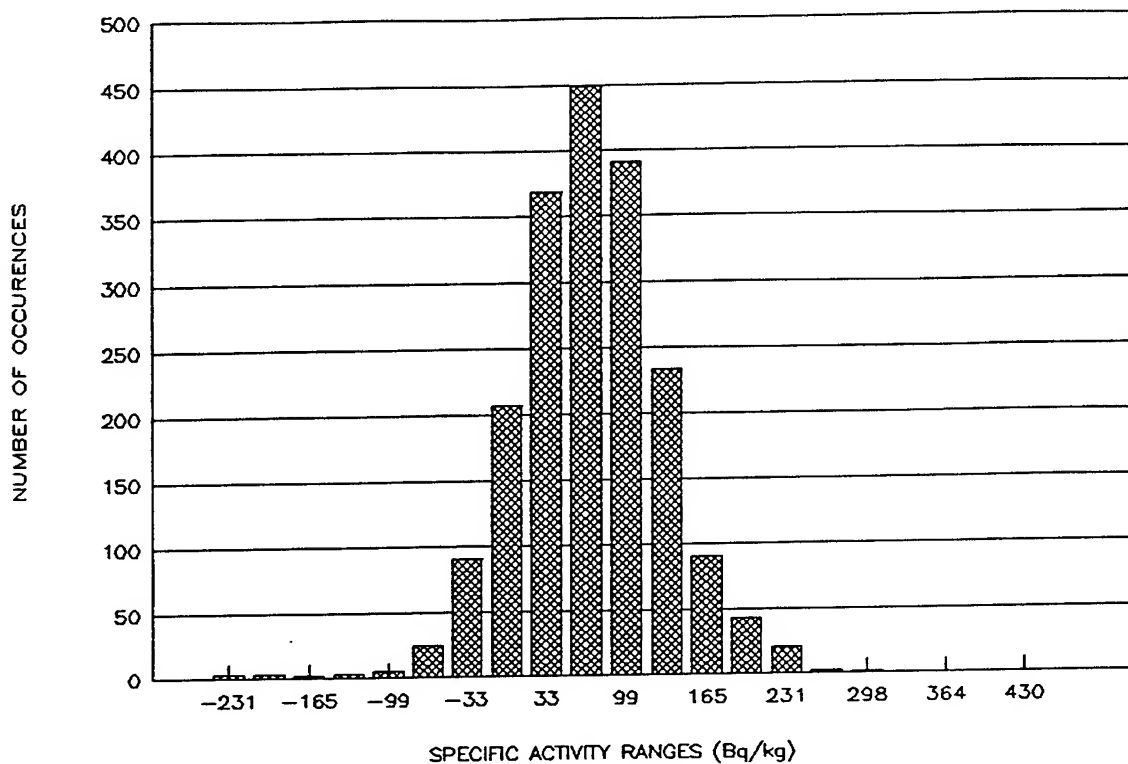
HOT PARTICLE EVENTS	979	SORTS BY ONE GATE ONLY	491
MULTIPARTICLE EVENTS	485	SORTS BY TWO GATES	473
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
2.00 Empty belt
3.00 Test (No process soil)

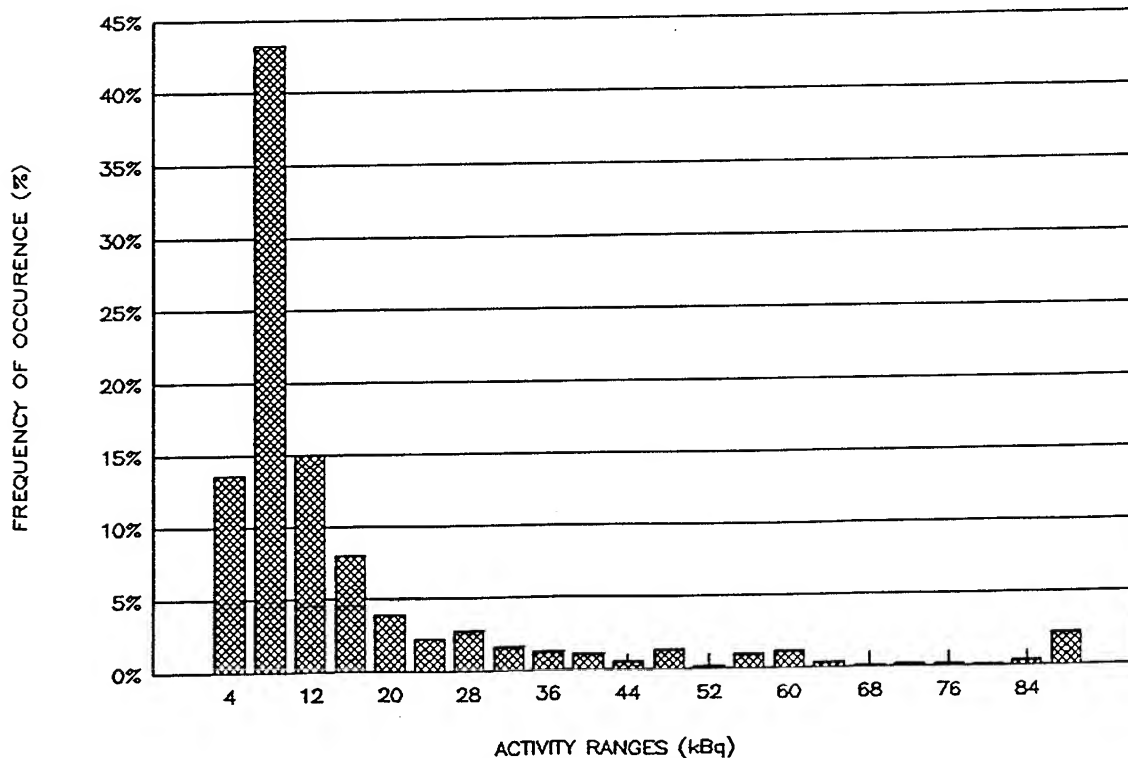
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 21-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 21-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 20-Apr-93

AVERAGE BACKGROUND COUNT RATE 0.77 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.2 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	1.24 tons	102.8 tons
MAXIMUM/SORT	58.7 kg	55.9 kg
MINIMUM/SORT	0.7 kg	49.6 kg

		98.8%
WEIGHT RECOVERY OR VOLUME RECOVERY		
EQUIVALENT SOIL-IN-GROUND	0.99 yd ³	81.5 yd ³ 82.5 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	17,377 kBq
MAXIMUM/SORT	533 kBq
MINIMUM/SORT	2.0 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	7,460 kBq	7,225 kBq
MAXIMUM/SORT	437 kBq	17 kBq
MINIMUM/SORT	0 Bq	-6 kBq
SPECIFIC ACTIVITY	5,995 Bq/kg	70 Bq/kg

WORK HISTORY

WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:35 AM	END SOIL PROCESSING	05:03 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.5 hr
AVAILABLE HOURS	11.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.34 hr
DOWN-TIME	1.16 hr
TOTAL SYSTEM PAUSE	0.58 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.59 hr
SHUT-DOWN	0.44 hr
PLANT PERFORMANCE	89.9%
PRODUCTIVITY	89.9%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 2,998

NONPROCESS RECORDS (Test, calibration, etc) 10

20-SEC PROCESS RECORDS	1,861		
TOTAL SORT	1 MD>0 & MND=0		
NO SORT	1,081 AD=0 & MD=0 & MND>0		
SOME SORT	779 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	4	UNEXPLAIN	PAUSE
AD=0 & MD	1	TIME	TIME
AD<0 & MD	0	09:02:32	06:08
ACT_P <5 kBq	382 33.6%	10:26:52	11:48

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	18,610	11:48:32	11:56
2-SEC RECORDS WITH SORTS	1,137 (ACT_P >0 kBq)	11:56:11	
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		13:43:51	
2 DETECTORS	234 85.4%		
3 DETECTORS	33 12.0%		
4 DETECTORS	5 1.8%		
5 DETECTORS	2 0.7%		
6 DETECTORS	0 0.0%		
7 DETECTORS	0 0.0%		
8 DETECTORS	0 0.0%		
TOTAL	274		
NET 2-SEC RECORDS WITH SORTS	863		
2-SEC PERIODS WITH NO SORTS	17,747		
AVG TIME BETWEEN 2-SEC SORTS	43.1 sec		

1-GATE SORTS	567	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	8	1.4%	-14000	1	-250	4000	185 16.3% 4
2	61	10.8%	-12000	0	-215	8000	492 43.3% 8
3	93	16.4%	-10000	0	-179	12000	136 12.0% 12
4	107	18.9%	-8000	2	-143	16000	72 6.3% 16
5	120	21.2%	-6000	3	-107	20000	57 5.0% 20
6	86	15.2%	-4000	11	-72	24000	49 4.3% 24
7	71	12.5%	-2000	54	-36	28000	31 2.7% 28
8	21	3.7%	0	154	0	32000	23 2.0% 32
TOTAL	567		2000	315	36	36000	17 1.5% 36
			4000	427	72	40000	4 0.4% 40
2-GATE SORTS	570		6000	432	107	44000	5 0.4% 44
DETECTR	SORTS	FREQ%	8000	270	143	48000	5 0.4% 48
8			10000	128	179	52000	4 0.4% 52
9	32	5.6%	12000	52	215	56000	2 0.2% 56
10	76	13.3%	14000	19	250	60000	5 0.4% 60
11	110	19.3%	16000	2	286	64000	10 0.9% 64
12	91	16.0%	18000	1	322	68000	3 0.3% 68
13	108	18.9%	20000	0	358	72000	1 0.1% 72
14	93	16.3%	22000	0	394	76000	2 0.2% 76
15	60	10.5%	24000	0	429	80000	2 0.2% 80
TOTAL	570		26000	0	465	84000	1 0.1% 84
			>28000	0	0	>84000	31 2.7% >84
			TOTAL	1871		TOTAL	1137

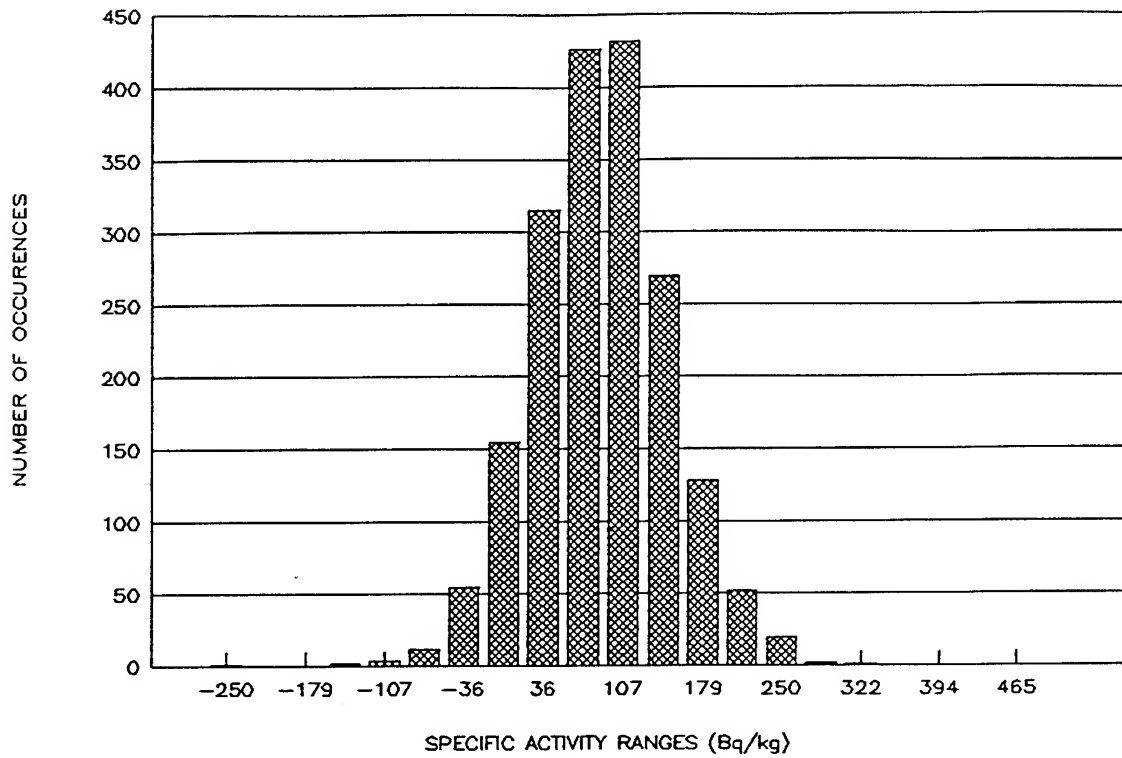
SUMMARY TOTALS		
HOT PARTICLE EVENTS	1160	SORTS BY ONE GATE ONLY 567
MULTIPARTICLE EVENTS	534	SORTS BY TWO GATES 570
DISTRIBUTED EVENTS	83	

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

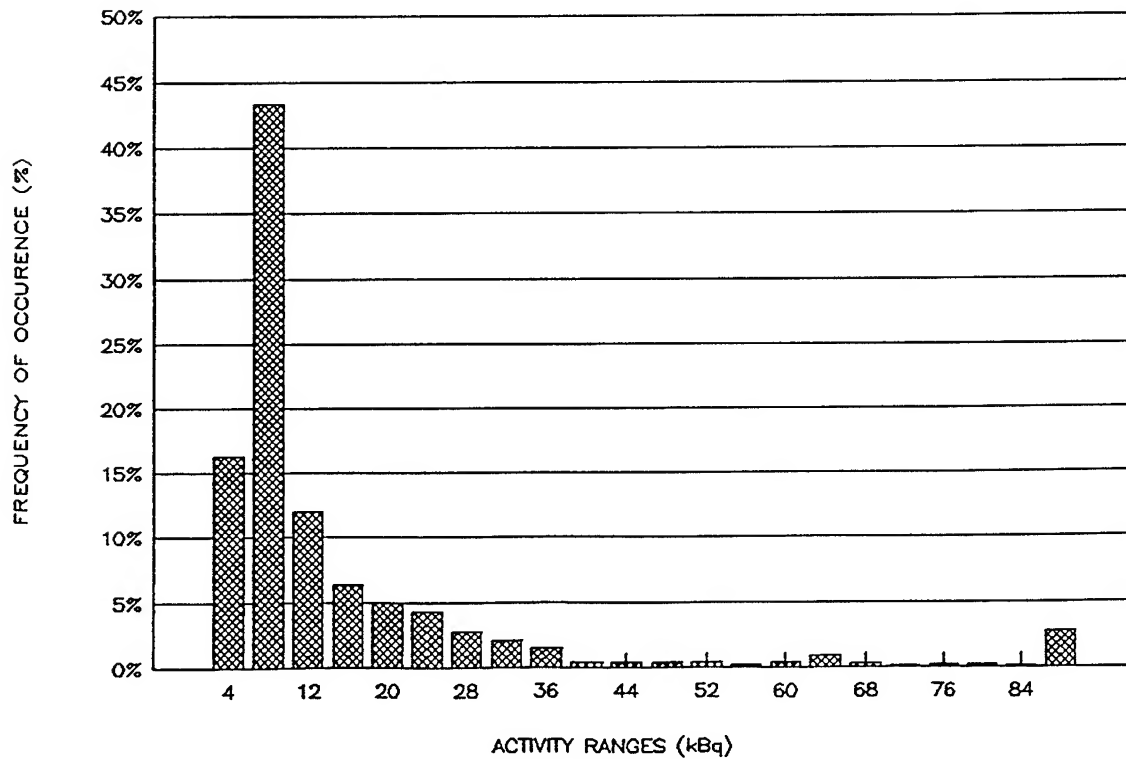
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 20-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 20-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 20-Apr-93

AVERAGE BACKGROUND COUNT RATE	0.80 ± 0.02 c/sec		
SORTER SOIL DENSITY	1.2 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	1.52 tons	103.5 tons	
MAXIMUM/SORT	58.7 kg	55.9 kg	
MINIMUM/SORT	0.7 kg	46.8 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			98.6%
EQUIVALENT SOIL-IN-GROUND	1.21 yd ³	82.0 yd ³	83.2 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	19,729 kBq		
MAXIMUM/SORT	1,467 kBq		
MINIMUM/SORT	2.7 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	9,523 kBq	4,687 kBq	
MINIMUM/SORT	1220 kBq	16 kBq	
SPECIFIC ACTIVITY	-19 Bq	-9 kBq	
	6,264 Bq/kg	45 Bq/kg	
WORK HISTORY			
WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:35 AM	END SOIL PROCESSING	05:00 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS	11.5 hr		
AVAILABLE HOURS	11.5 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	10.43 hr		
DOWN-TIME	1.07 hr		
TOTAL SYSTEM PAUSE	0.44 hr		
NONAVAILABLE HOURS	0.0 hr		
START-UP	0.59 hr		
SHUT-DOWN	0.49 hr		
PLANT PERFORMANCE	90.7%		
PRODUCTIVITY	90.7%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,897		
NONPROCESS RECORDS (Test, calibration, etc)	17		
20-SEC PROCESS RECORDS	1,878		
TOTAL SORT	1 MD>0 & MND=0		
NO SORT	855 AD=0 & MD=0 & MND>0		
SOME SORT	1,021 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	1		
0<AD<1kBq & MD>0		UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	1	10:03:52	06:08
ACT_P <5 kBq	300 29.4%	12:01:16	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 18,780
 2-SEC RECORDS WITH SORTS 1,019 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 229 87.4%
 3 DETECTORS 29 11.1%
 4 DETECTORS 3 1.1%
 5 DETECTORS 1 0.4%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 262
 NET 2-SEC RECORDS WITH SORTS 757
 2-SEC PERIODS WITH NO SORTS 18,023
 AVG TIME BETWEEN 2-SEC SORTS 49.6 sec

1-GATE SORTS		542	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	13	2.4%	-14000	6	-250	4000	135	13.2%	4
2	66	12.2%	-12000	2	-215	8000	433	42.5%	8
3	113	20.8%	-10000	1	-179	12000	156	15.3%	12
4	109	20.1%	-8000	6	-143	16000	81	7.9%	16
5	104	19.2%	-6000	6	-107	20000	35	3.4%	20
6	86	15.9%	-4000	29	-72	24000	29	2.8%	24
7	39	7.2%	-2000	129	-36	28000	18	1.8%	28
8	12	2.2%	0	293	0	32000	14	1.4%	32
TOTAL	542		2000	393	36	36000	16	1.6%	36
			4000	441	72	40000	8	0.8%	40
			6000	302	107	44000	11	1.1%	44
2-GATE SORTS		477	8000	171	143	48000	3	0.3%	48
DETECTR	SORTS	FREQ%	10000	73	179	52000	6	0.6%	52
8			12000	28	215	56000	3	0.3%	56
9	31	6.5%	14000	5	250	60000	6	0.6%	60
10	69	14.5%	16000	7	286	64000	5	0.5%	64
11	104	21.8%	18000	3	322	68000	7	0.7%	68
12	101	21.2%	20000	0	358	72000	3	0.3%	72
13	83	17.4%	22000	0	394	76000	7	0.7%	76
14	68	14.3%	24000	0	429	80000	4	0.4%	80
15	21	4.4%	26000	0	465	84000	0	0.0%	84
TOTAL	477		26000	0	465	84000	0	0.0%	84
			>28000	0	0	>84000	39	3.8%	>84
			TOTAL	1895		TOTAL	1019		

SUMMARY TOTALS

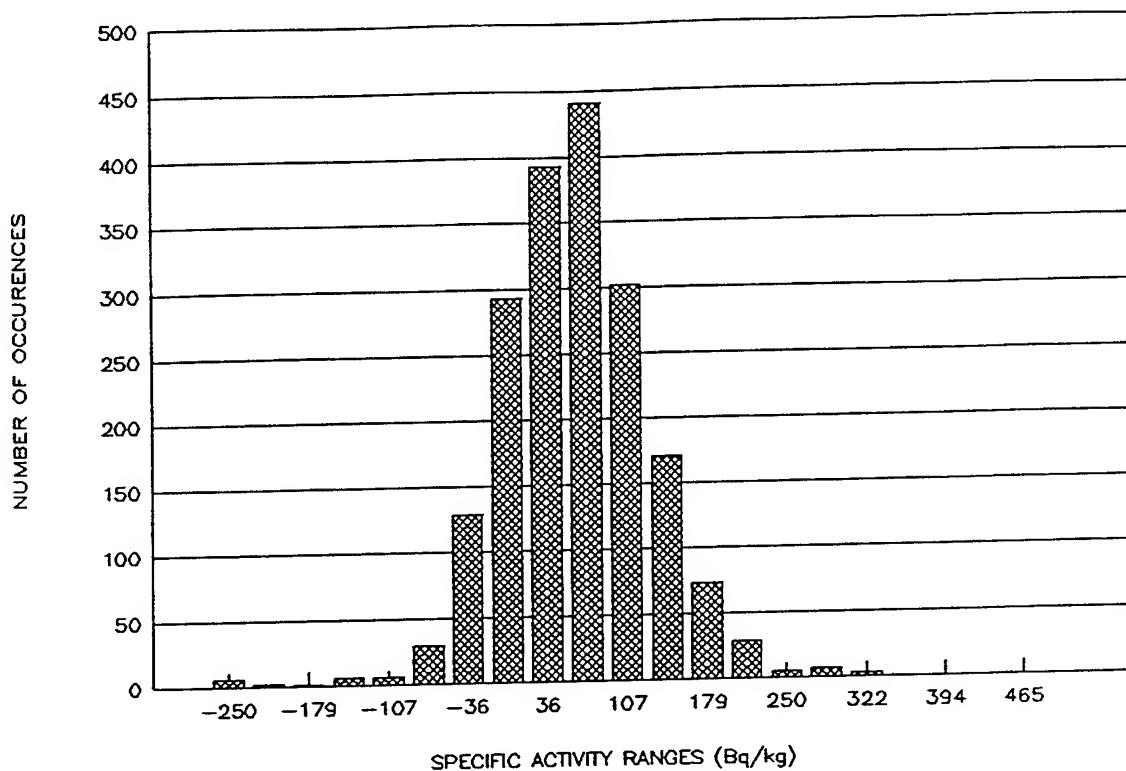
HOT PARTICLE EVENTS	1007	SORTS BY ONE GATE ONLY	542
MULTIPARTICLE EVENTS	1081	SORTS BY TWO GATES	477
DISTRIBUTED EVENTS	83		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

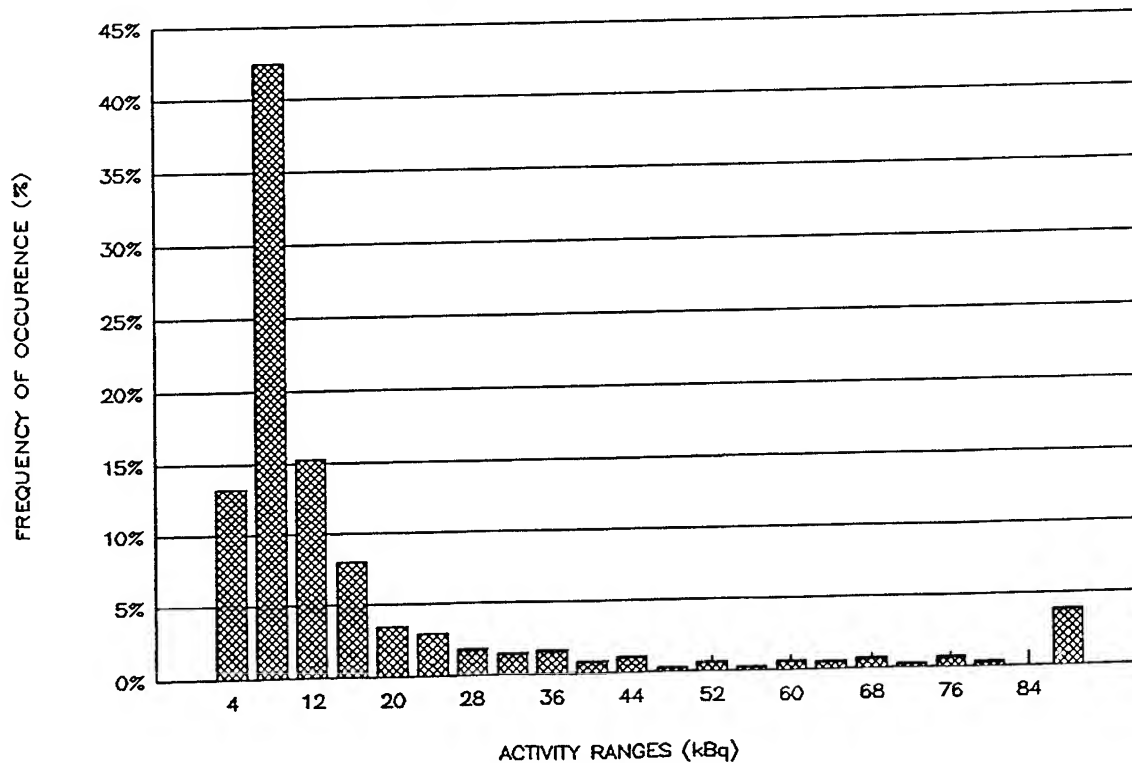
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 20-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 20-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 19-Apr-93

AVERAGE BACKGROUND COUNT RATE 0.78 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN	
MASS TOTAL	1.47 tons	98.7 tons	
MAXIMUM/SORT	7.4 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	46.2 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			98.5%
EQUIVALENT SOIL-IN-GROUND	1.17 yd ³	78.2 yd ³	79.4 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	30,900 kBq
MAXIMUM/SORT	1,590 kBq
MINIMUM/SORT	2.4 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

	12,455 kBq	7,636 kBq
MAXIMUM/SORT	1185 kBq	18 kBq
MINIMUM/SORT	0 Bq	-7 kBq
SPECIFIC ACTIVITY	8,468 Bq/kg	77 Bq/kg

WORK HISTORY

WORK DAY START	06:09 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:09 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:35 AM	END SOIL PROCESSING	04:58 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.4 hr
AVAILABLE HOURS	11.4 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.38 hr
DOWN-TIME	0.97 hr
TOTAL SYSTEM PAUSE	0.43 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.44 hr
SHUT-DOWN	0.53 hr
PLANT PERFORMANCE	91.5%
PRODUCTIVITY	91.5%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)

NONPROCESS RECORDS (Test, calibration, etc)

20-SEC PROCESS RECORDS

TOTAL SORT	0 MD>0 & MND=0
NO SORT	943 AD=0 & MD=0 & MND>0
SOME SORT	926 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	3
AD=0 & MD	0
AD<0 & MD	0
ACT_P <5 kBq	473 29.8%

UNEXPLAIN	PAUSE
TIME	TIME
07:48:36	06:09
12:31:56	06:10

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 18,690 12:49:56
 2-SEC RECORDS WITH SORTS 1,585 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 365 83.9%
 3 DETECTORS 57 13.1%
 4 DETECTORS 11 2.5%
 5 DETECTORS 2 0.5%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 435
 NET 2-SEC RECORDS WITH SORTS 1,150
 2-SEC PERIODS WITH NO SORTS 17,540
 AVG TIME BETWEEN 2-SEC SORTS 32.5 sec

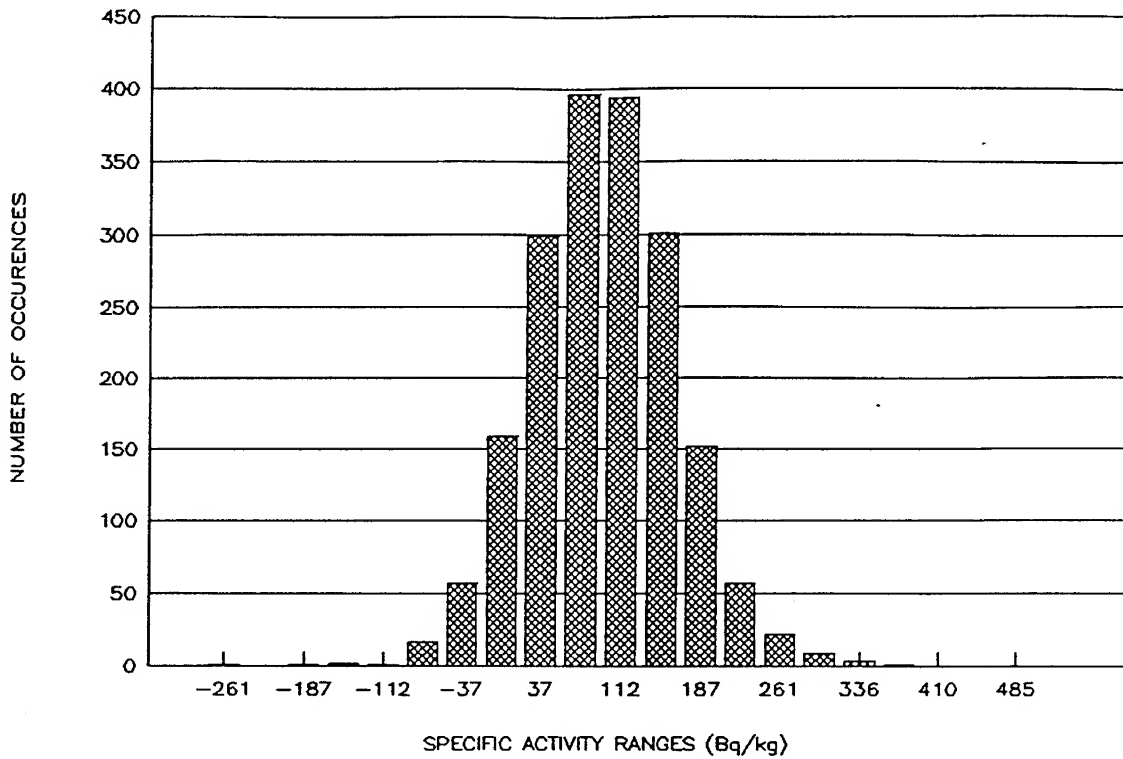
1-GATE SORTS DETECTR	SORTS	794 FREQ%	ACT_NO (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT FREQ%	ACT_P (kBq)
1	18	2.3%	-14000	1	-261	4000	221 13.9%	4
2	81	10.2%	-12000	0	-224	8000	664 41.9%	8
3	128	16.1%	-10000	1	-187	12000	222 14.0%	12
4	142	17.9%	-8000	2	-149	16000	132 8.3%	16
5	166	20.9%	-6000	1	-112	20000	79 5.0%	20
6	125	15.7%	-4000	17	-75	24000	52 3.3%	24
7	101	12.7%	-2000	57	-37	28000	30 1.9%	28
8	33	4.2%	0	159	0	32000	32 2.0%	32
TOTAL	794		2000	299	37	36000	29 1.8%	36
			4000	397	75	40000	16 1.0%	40
			6000	394	112	44000	12 0.8%	44
2-GATE SORTS		791	8000	301	149	48000	10 0.6%	48
DETECTR	SORTS	FREQ%				52000	5 0.3%	52
8			10000	152	187	56000	8 0.5%	56
9	49	6.2%	12000	57	224	60000	3 0.2%	60
10	115	14.5%	14000	22	261	64000	8 0.5%	64
11	137	17.3%	16000	9	299	68000	6 0.4%	68
12	137	17.3%	18000	3	336	72000	3 0.2%	72
13	168	21.2%	20000	1	373	76000	3 0.2%	76
14	113	14.3%	22000	0	410	80000	2 0.1%	80
15	72	9.1%	24000	0	448	84000	3 0.2%	84
TOTAL	791		26000	0	485	>84000	45 2.8%	>84
			>28000	0	0	TOTAL	1585	
			TOTAL	1873				
SUMMARY TOTALS								
HOT PARTICLE EVENTS		1590			SORTS BY ONE GATE ONLY	794		
MULTIPARTICLE EVENTS		612			SORTS BY TWO GATES	791		
DISTRIBUTED EVENTS		0						

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 19-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 19-Apr-93

AVERAGE BACKGROUND COUNT RATE	0.80 ± 0.03 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	2.46 tons	97.6 tons	
MAXIMUM/SORT	53.6 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	44.9 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			97.5%
EQUIVALENT SOIL-IN-GROUND	1.95 yd ³	77.4 yd ³	79.3 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	21,595 kBq		
MAXIMUM/SORT	573 kBq		
MINIMUM/SORT	2.2 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	11,691 kBq	5,269 kBq	
MINIMUM/SORT	428 kBq	17 kBq	
SPECIFIC ACTIVITY	0 Bq	-17 kBq	
	4,758 Bq/kg	54 Bq/kg	
WORK HISTORY			
WORK DAY START	05:50 AM	WORK DAY END	05:30 PM
PLANT START-UP	05:50 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:35 AM	END SOIL PROCESSING	04:57 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS		11.7 hr	
AVAILABLE HOURS		11.7 hr	
ACTUAL PROCESS HOURS (total 20-sec records)		10.38 hr	
DOWN-TIME		1.29 hr	
TOTAL SYSTEM PAUSE		0.43 hr	
NONAVAILABLE HOURS		0.0 hr	
START-UP		0.76 hr	
SHUT-DOWN		0.53 hr	
PLANT PERFORMANCE		89.0%	
PRODUCTIVITY		89.0%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)		3,346	
NONPROCESS RECORDS (Test, calibration, etc)		5	
20-SEC PROCESS RECORDS		1,868	
TOTAL SORT		5 MD>0 & MND=0	
NO SORT		541 AD=0 & MD=0 & MND>0	
SOME SORT		1,322 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS		0	
0<AD<1kBq & MD>0	0		UNEXPLAIN PAUSE
AD=0 & MD	0		TIME TIME
AD<0 & MD	0		None 06:09
ACT_P <5 kBq	463 31.3%		06:10

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 18,680
 2-SEC RECORDS WITH SORTS 1,478 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 317 85.4%
 3 DETECTORS 48 12.9%
 4 DETECTORS 6 1.6%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 371
 NET 2-SEC RECORDS WITH SORTS 1,107
 2-SEC PERIODS WITH NO SORTS 17,573
 AVG TIME BETWEEN 2-SEC SORTS 33.7 sec

1-GATE SORTS		782	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%		ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	21	2.7%	-14000	4	-261	4000	209	14.1%	4
2	83	10.6%	-12000	1	-224	8000	641	43.4%	8
3	164	21.0%	-10000	4	-187	12000	218	14.7%	12
4	168	21.5%	-8000	4	-149	16000	129	8.7%	16
5	164	21.0%	-6000	18	-112	20000	71	4.8%	20
6	112	14.3%	-4000	41	-75	24000	42	2.8%	24
7	62	7.9%	-2000	115	-37	28000	18	1.2%	28
8	8	1.0%	0	257	0	32000	27	1.8%	32
TOTAL	782		2000	363	37	36000	22	1.5%	36
			4000	393	75	40000	11	0.7%	40
2-GATE SORTS		696	6000	289	112	44000	16	1.1%	44
DETECTR	SORTS	FREQ%	8000	208	149	48000	9	0.6%	48
8			10000	95	187	52000	4	0.3%	52
9	35	5.0%	12000	45	224	56000	5	0.3%	56
10	91	13.1%	14000	21	261	60000	6	0.4%	60
11	171	24.6%	16000	13	299	64000	7	0.5%	64
12	156	22.4%	18000	2	336	68000	4	0.3%	68
13	122	17.5%	20000	0	373	72000	1	0.1%	72
14	90	12.9%	22000	0	410	76000	3	0.2%	76
15	31	4.5%	24000	0	448	80000	2	0.1%	80
TOTAL	696		26000	0	485	84000	2	0.1%	84
			>28000	0	0	>84000	31	2.1%	>84
			TOTAL	1873		TOTAL	1478		

SUMMARY TOTALS

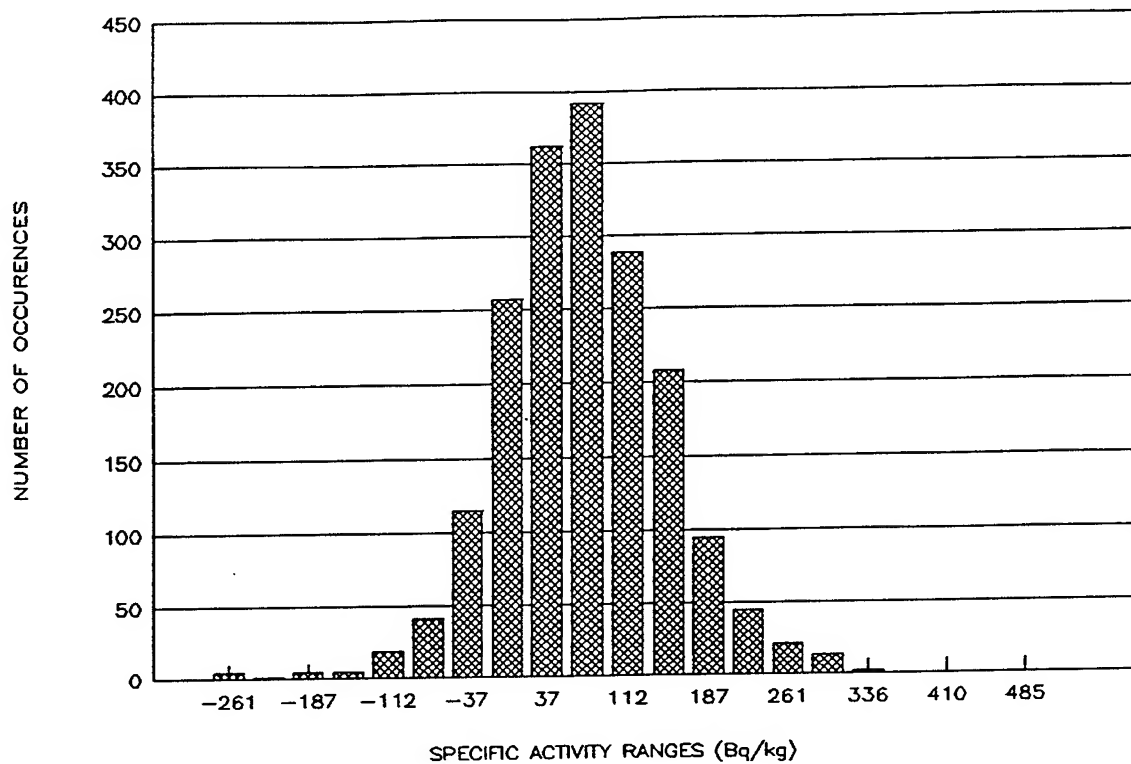
HOT PARTICLE EVENTS	1465	SORTS BY ONE GATE ONLY	782
MULTIPARTICLE EVENTS	1821	SORTS BY TWO GATES	696
DISTRIBUTED EVENTS	389		

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 19-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 17-Apr-93

AVERAGE BACKGROUND COUNT RATE	0.74 ± 0.05 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	1.61 tons	73.9 tons	
MAXIMUM/SORT	53.6 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	40.8 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			97.9%
EQUIVALENT SOIL-IN-GROUND	1.28 yd ³	58.6 yd ³	59.8 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	16,566 kBq		
MAXIMUM/SORT	443 kBq		
MINIMUM/SORT	2.4 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	7,998 kBq	6,274 kBq	
MAXIMUM/SORT	348 kBq	21 kBq	
MINIMUM/SORT	0 Bq	-13 kBq	
SPECIFIC ACTIVITY	4,957 Bq/kg	85 Bq/kg	
WORK HISTORY			
WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	07:00 AM	END SOIL PROCESSING	03:08 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS	11.5 hr		
AVAILABLE HOURS	11.5 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	7.83 hr		
DOWN-TIME	3.67 hr		
TOTAL SYSTEM PAUSE	1.23 hr		
NONAVAILABLE HOURS	0.0 hr		
START-UP	1.01 hr		
SHUT-DOWN	2.35 hr		
PLANT PERFORMANCE	68.1%		
PRODUCTIVITY	68.1%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,801		
NONPROCESS RECORDS (Test, calibration, etc)	19		
20-SEC PROCESS RECORDS	1,409		
TOTAL SORT	2 MD>0 & MND=0		
NO SORT	691 AD=0 & MD=0 & MND>0		
SOME SORT	716 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	1	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	13:50:35	06:00
ACT_P <5 kBq	584 42.0%		07:04

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 14,090
 2-SEC RECORDS WITH SORTS 1,392 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 305 90.2%
 3 DETECTORS 31 9.2%
 4 DETECTORS 2 0.6%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 338
 NET 2-SEC RECORDS WITH SORTS 1,054
 2-SEC PERIODS WITH NO SORTS 13,036
 AVG TIME BETWEEN 2-SEC SORTS 26.7 sec

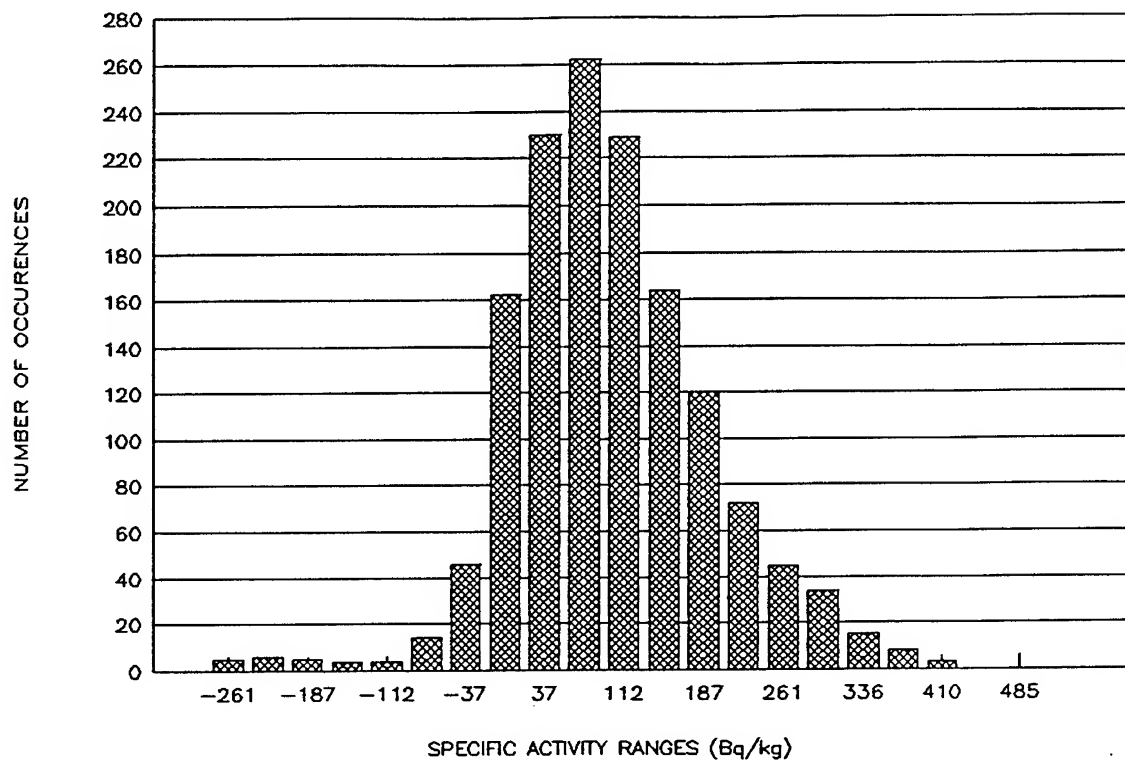
1-GATE SORTS		692	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%		ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	11	1.6%	-14000	5	-261	4000	282	20.3%	4
2	61	8.8%	-12000	6	-224	8000	689	49.5%	8
3	109	15.8%	-10000	5	-187	12000	169	12.1%	12
4	121	17.5%	-8000	4	-149	16000	69	5.0%	16
5	139	20.1%	-6000	4	-112	20000	39	2.8%	20
6	110	15.9%	-4000	14	-75	24000	35	2.5%	24
7	113	16.3%	-2000	46	-37	28000	17	1.2%	28
8	28	4.0%	0	162	0	32000	13	0.9%	32
TOTAL	692		2000	230	37	36000	11	0.8%	36
			4000	262	75	40000	7	0.5%	40
			6000	229	112	44000	2	0.1%	44
2-GATE SORTS		700	8000	164	149	48000	6	0.4%	48
DETECTR	SORTS	FREQ%	10000	120	187	52000	5	0.4%	52
8			12000	72	224	56000	6	0.4%	56
9	31	4.4%	14000	45	261	60000	2	0.1%	60
10	79	11.3%	16000	34	299	64000	5	0.4%	64
11	118	16.9%	18000	15	336	68000	7	0.5%	68
12	133	19.0%	20000	8	373	72000	6	0.4%	72
13	132	18.9%	22000	3	410	76000	3	0.2%	76
14	120	17.1%	24000	0	448	80000	2	0.1%	80
15	87	12.4%	26000	0	485	84000	0	0.0%	84
TOTAL	700		>28000	0	0	>84000	17	1.2%	>84
			TOTAL	1428		TOTAL	1392		
SUMMARY TOTALS									
HOT PARTICLE EVENTS			1487	SORTS BY ONE GATE ONLY			692		
MULTIPARTICLE EVENTS			776	SORTS BY TWO GATES			700		
DISTRIBUTED EVENTS			152						

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

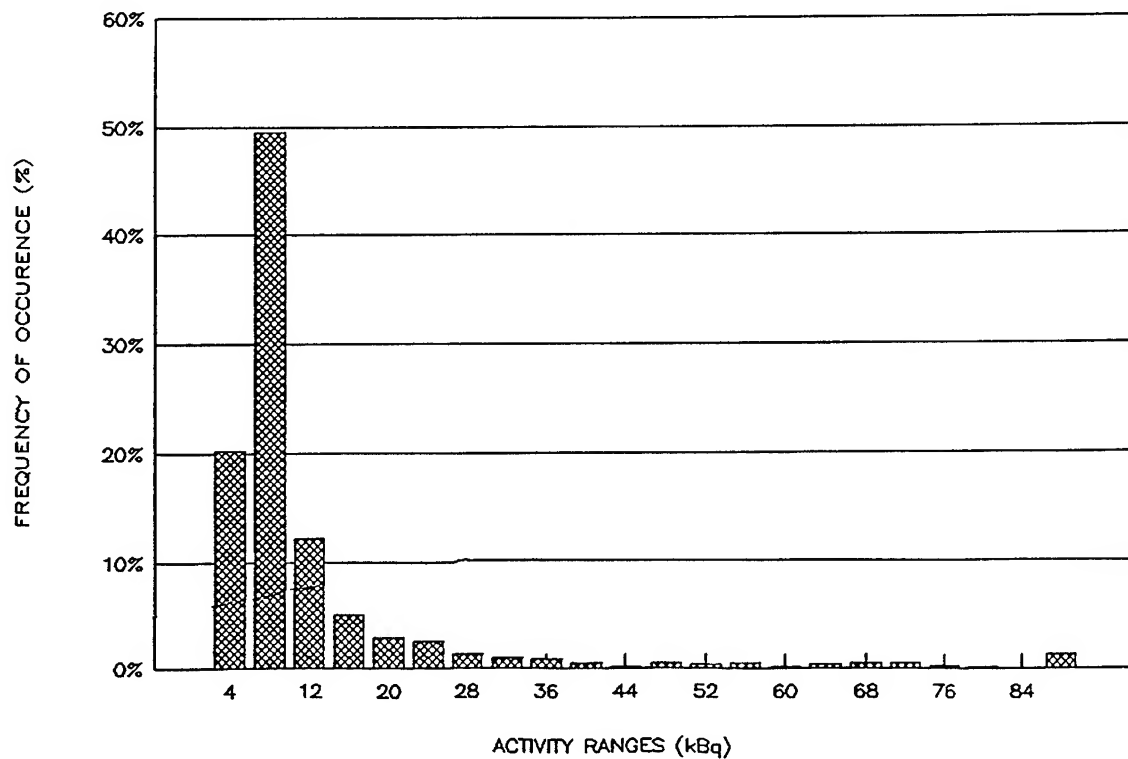
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 17-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 17-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 17-Apr-93

AVERAGE BACKGROUND COUNT RATE	0.79 ± 0.04 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		3.14 tons	71.3 tons
MAXIMUM/SORT		53.6 kg	53.6 kg
MINIMUM/SORT		0.7 kg	42.8 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			95.8%
EQUIVALENT SOIL-IN-GROUND	2.49 yd ³	56.5 yd ³	59.0 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	20,775 kBq		
MAXIMUM/SORT	1,488 kBq		
MINIMUM/SORT	2.3 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	12,371 kBq	6,805 kBq	
MINIMUM/SORT	1316 kBq	18 kBq	
SPECIFIC ACTIVITY	0 Bq	-17 kBq	
	3,935 Bq/kg	95 Bq/kg	
WORK HISTORY			
WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	07:00 AM	END SOIL PROCESSING	03:07 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS		11.5 hr	
AVAILABLE HOURS		11.5 hr	
ACTUAL PROCESS HOURS (total 20-sec records)		7.72 hr	
DOWN-TIME		3.78 hr	
TOTAL SYSTEM PAUSE		1.23 hr	
NONAVAILABLE HOURS		0.0 hr	
START-UP		1.00 hr	
SHUT-DOWN		2.38 hr	
PLANT PERFORMANCE		67.1%	
PRODUCTIVITY		67.1%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)		2,762	
NONPROCESS RECORDS (Test, calibration, etc)		35	
20-SEC PROCESS RECORDS		1,390	
TOTAL SORT		19 MD>0 & MND=0	
NO SORT		403 AD=0 & MD=0 & MND>0	
SOME SORT		967 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS		1	
0<AD<1kBq & MD>0	1		UNEXPLAIN PAUSE
AD=0 & MD	1		TIME TIME
AD<0 & MD	0		08:11:55 06:00
ACT_P <5 kBq	520 37.9%		11:10:55 07:04

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 13,900
 2-SEC RECORDS WITH SORTS 1,372 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 268 83.2%
 3 DETECTORS 48 14.9%
 4 DETECTORS 6 1.9%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 322
 NET 2-SEC RECORDS WITH SORTS 1,050
 2-SEC PERIODS WITH NO SORTS 12,850
 AVG TIME BETWEEN 2-SEC SORTS 26.5 sec

1-GATE SORTS		720	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	17	2.4%	-14000	13	-261	4000	262	19.1%	4
2	108	15.0%	-12000	6	-224	8000	657	47.9%	8
3	99	13.8%	-10000	4	-187	12000	160	11.7%	12
4	120	16.7%	-8000	4	-149	16000	84	6.1%	16
5	144	20.0%	-6000	5	-112	20000	41	3.0%	20
6	120	16.7%	-4000	11	-75	24000	25	1.8%	24
7	94	13.1%	-2000	36	-37	28000	20	1.5%	28
8	18	2.5%	0	119	0	32000	21	1.5%	32
TOTAL	720		2000	213	37	36000	13	0.9%	36
			4000	248	75	40000	13	0.9%	40
2-GATE SORTS		652	6000	252	112	44000	10	0.7%	44
DETECTR	SORTS	FREQ%	8000	177	149	48000	4	0.3%	48
8			10000	152	187	52000	5	0.4%	52
9	49	7.5%	12000	95	224	56000	8	0.6%	56
10	88	13.5%	14000	49	261	60000	3	0.2%	60
11	109	16.7%	16000	30	299	64000	3	0.2%	64
12	128	19.6%	18000	11	336	68000	6	0.4%	68
13	121	18.6%	20000	0	373	72000	1	0.1%	72
14	113	17.3%	22000	0	410	76000	4	0.3%	76
15	44	6.7%	24000	0	448	80000	2	0.1%	80
TOTAL	652		26000	0	485	84000	2	0.1%	84
			>28000	0	0	>84000	28	2.0%	>84
			TOTAL	1425		TOTAL	1372		

SUMMARY TOTALS

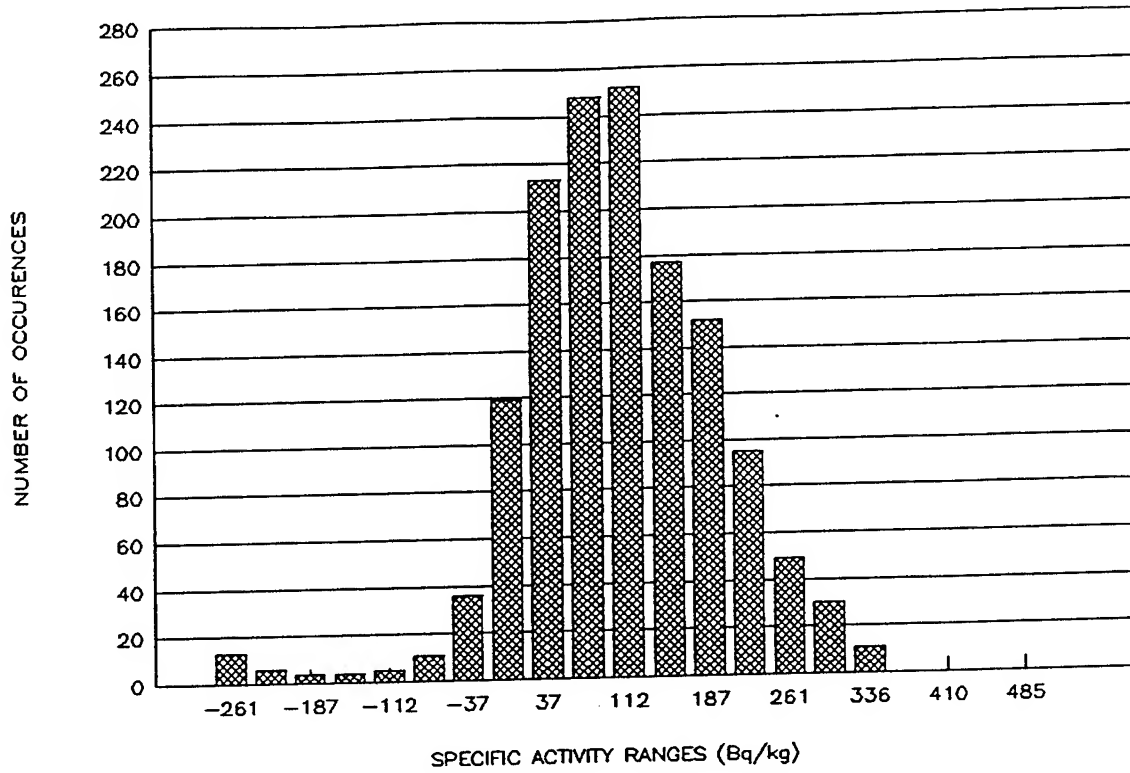
HOT PARTICLE EVENTS	1441	SORTS BY ONE GATE ONLY	720
MULTIPARTICLE EVENTS	1856	SORTS BY TWO GATES	652
DISTRIBUTED EVENTS	1402		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

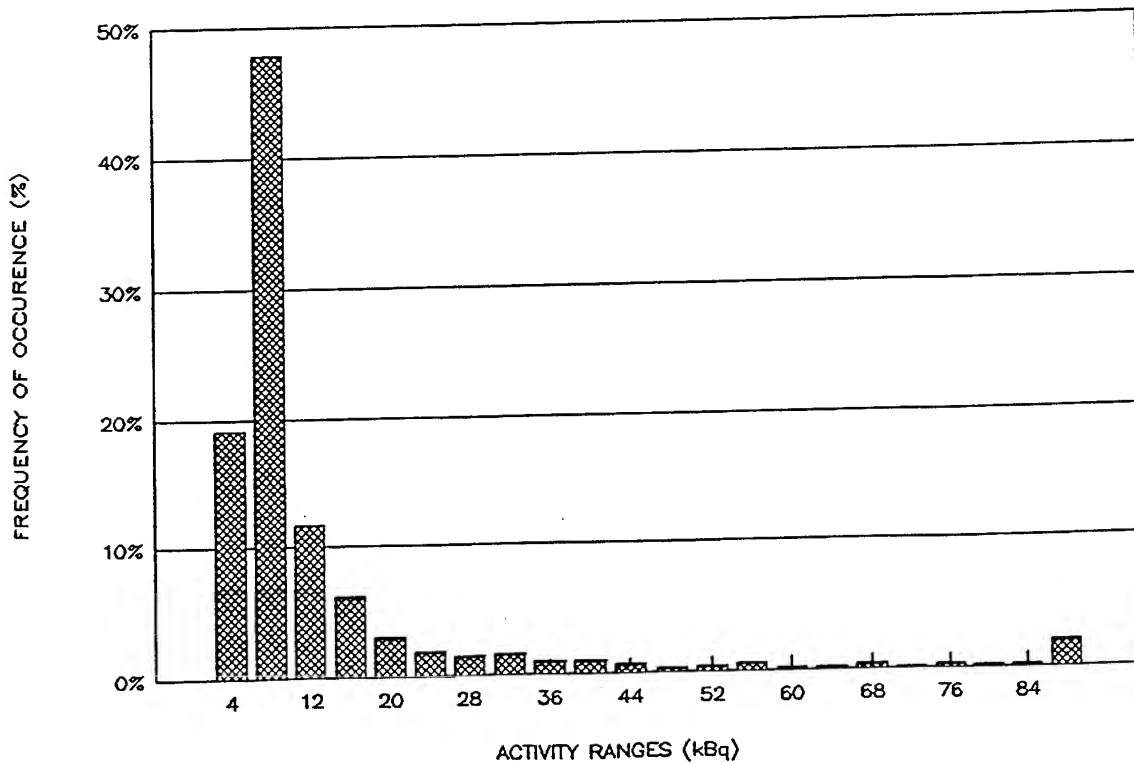
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 17-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 17-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 16-Apr-93

AVERAGE BACKGROUND COUNT RATE 0.75 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN	
MASS TOTAL	0.30 tons	66.8 tons	
MAXIMUM/SORT	4 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	49.5 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.6%
EQUIVALENT SOIL-IN-GROUND	0.24 yd ³	52.9 yd ³	53.2 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	3,975 kBq
MAXIMUM/SORT	227 kBq
MINIMUM/SORT	2.5 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

	1,755 kBq	531 kBq
MAXIMUM/SORT	188 kBq	11 kBq
MINIMUM/SORT	0 Bq	-11 kBq
SPECIFIC ACTIVITY	5,812 Bq/kg	8 Bq/kg

WORK HISTORY

WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	10:01 AM	PLANT SHUT-DOWN	05:01 PM
START SOIL PROCESSING	10:02 AM	END SOIL PROCESSING	04:59 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.5 hr
AVAILABLE HOURS	7.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	6.96 hr
DOWN-TIME	0.04 hr
TOTAL SYSTEM PAUSE	0.60 hr
NONAVAILABLE HOURS	4.5 hr
START-UP	0.02 hr
SHUT-DOWN	0.03 hr
PLANT PERFORMANCE	99.4%
PRODUCTIVITY	60.5%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 1,553

NONPROCESS RECORDS (Test, calibration, etc) 7

20-SEC PROCESS RECORDS

TOTAL SORT	0 MD>0 & MND=0		
NO SORT	992 AD=0 & MD=0 & MND>0		
SOME SORT	260 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	0	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	None	09:25
ACT_P <5 kBq	105		09:35

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 12,520
 2-SEC RECORDS WITH SORTS 301 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 59 76.6%
 3 DETECTORS 15 19.5%
 4 DETECTORS 3 3.9%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 77
 NET 2-SEC RECORDS WITH SORTS 224
 2-SEC PERIODS WITH NO SORTS 12,296
 AVG TIME BETWEEN 2-SEC SORTS 111.8 sec

1-GATE SORTS		161	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%		ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	1	0.6%	-14000	0	-261	4000	54	17.9%	4
2	5	3.1%	-12000	0	-224	8000	131	43.5%	8
3	20	12.4%	-10000	2	-187	12000	43	14.3%	12
4	39	24.2%	-8000	4	-149	16000	19	6.3%	16
5	44	27.3%	-6000	20	-112	20000	14	4.7%	20
6	25	15.5%	-4000	83	-75	24000	8	2.7%	24
7	23	14.3%	-2000	166	-37	28000	6	2.0%	28
8	4	2.5%	0	291	0	32000	8	2.7%	32
TOTAL	161		2000	326	37	36000	1	0.3%	36
			4000	203	75	40000	0	0.0%	40
			6000	106	112	44000	1	0.3%	44
2-GATE SORTS		140	8000	44	149	48000	0	0.0%	48
DETECTR	SORTS	FREQ%				52000	1	0.3%	52
8			10000	11	187	56000	2	0.7%	56
9	3	2.1%	12000	3	224	60000	2	0.7%	60
10	7	5.0%	14000	0	261	64000	1	0.3%	64
11	23	16.4%	16000	0	299	68000	1	0.3%	68
12	36	25.7%	18000	0	336	72000	1	0.3%	72
13	34	24.3%	20000	0	373	76000	1	0.3%	76
14	25	17.9%	22000	0	410	80000	1	0.3%	80
15	12	8.6%	24000	0	448	84000	0	0.0%	84
TOTAL	140		26000	0	485	>84000	6	2.0%	>84
			>28000	0	0				
			TOTAL	1259		TOTAL	301		

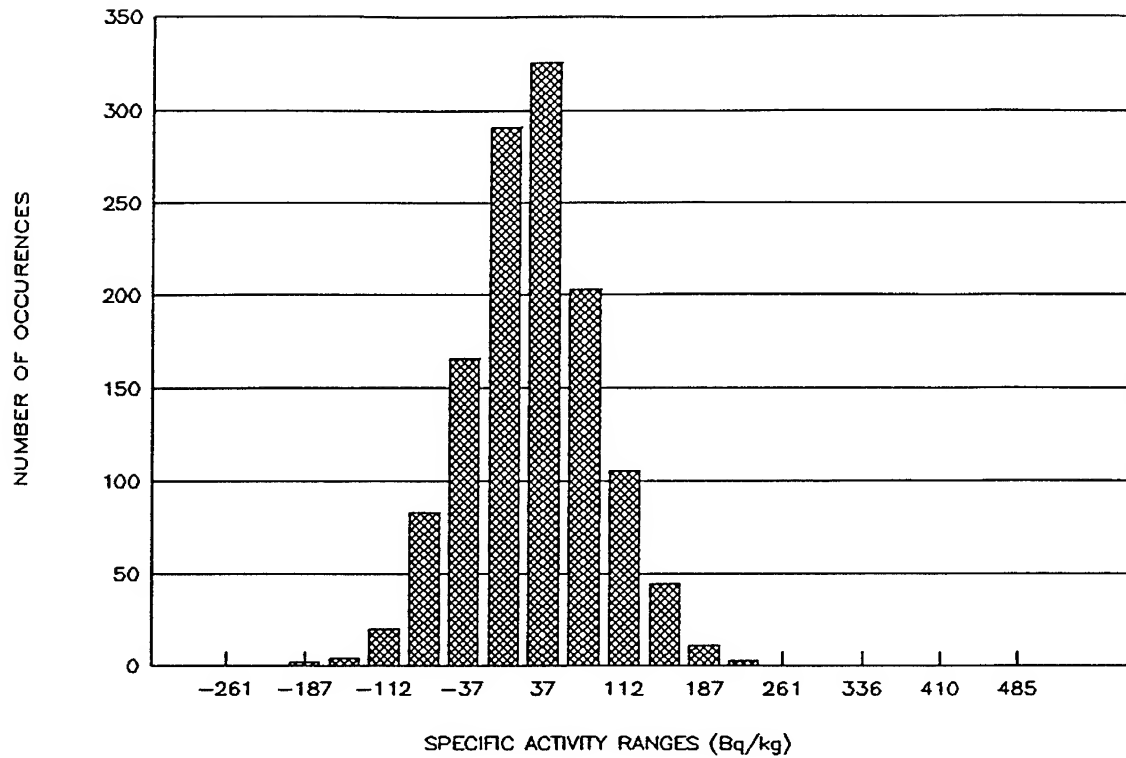
SUMMARY TOTALS
 HOT PARTICLE EVENTS 299 SORTS BY ONE GATE ONLY 161
 MULTIPARTICLE EVENTS 151 SORTS BY TWO GATES 140
 DISTRIBUTED EVENTS 0

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

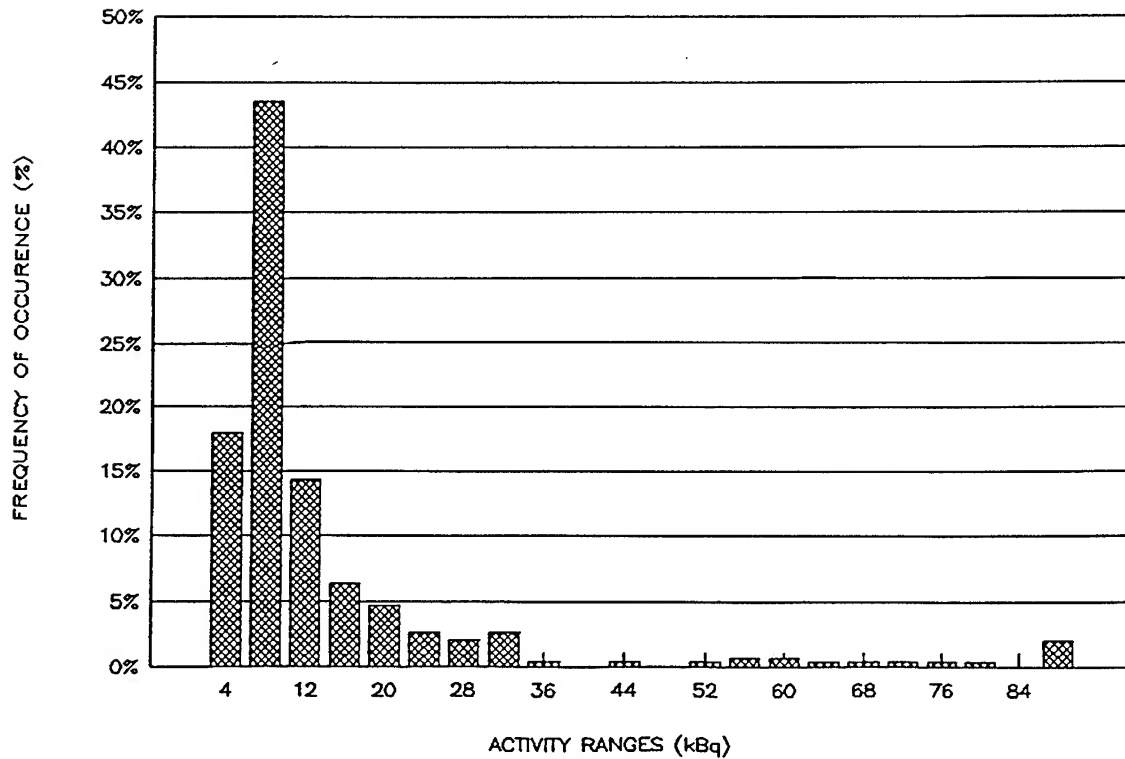
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 16-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 16-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 16-Apr-93

AVERAGE BACKGROUND COUNT RATE	0.79 ± 0.02 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	0.49 tons	64.4 tons	
MAXIMUM/SORT	6 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	47.5 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.2%
EQUIVALENT SOIL-IN-GROUND	0.39 yd ³	51.0 yd ³	51.4 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	3,634 kBq		
MAXIMUM/SORT	79 kBq		
MINIMUM/SORT	2.7 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	2,177 kBq	804 kBq	
MINIMUM/SORT	78 kBq	13 kBq	
SPECIFIC ACTIVITY	0 Bq	-10 kBq	
	4,446 Bq/kg	12 Bq/kg	
WORK HISTORY			
WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	10:01 AM	PLANT SHUT-DOWN	05:01 PM
START SOIL PROCESSING	10:02 AM	END SOIL PROCESSING	05:00 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS	11.5 hr		
AVAILABLE HOURS	7.0 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	6.72 hr		
DOWN-TIME	0.28 hr		
TOTAL SYSTEM PAUSE	0.60 hr		
NONAVAILABLE HOURS	4.5 hr		
START-UP	0.02 hr		
SHUT-DOWN	0.01 hr		
PLANT PERFORMANCE	96.0%		
PRODUCTIVITY	58.5%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	1,491		
NONPROCESS RECORDS (Test, calibration, etc)	49		
20-SEC PROCESS RECORDS	1,210		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	775 AD=0 & MD=0 & MND>0		
SOME SORT	435 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	0	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	None	09:25
ACT_P <5 kBq	87 31.0%		09:35

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 12,100
 2-SEC RECORDS WITH SORTS 281 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 63 85.1%
 3 DETECTORS 11 14.9%
 4 DETECTORS 0 0.0%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 74
 NET 2-SEC RECORDS WITH SORTS 207
 2-SEC PERIODS WITH NO SORTS 11,893
 AVG TIME BETWEEN 2-SEC SORTS 116.9 sec

1-GATE SORTS DETECTR	SORTS	148 FREQ%	ACT_ND (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT FREQ% (#)	ACT_P (kBq)
1	4	2.7%	-14000	1	-261	4000	38 13.5%	4
2	16	10.8%	-12000	0	-224	8000	128 45.6%	8
3	25	16.9%	-10000	6	-187	12000	35 12.5%	12
4	31	20.9%	-8000	15	-149	16000	18 6.4%	16
5	32	21.6%	-6000	29	-112	20000	10 3.6%	20
6	27	18.2%	-4000	74	-75	24000	14 5.0%	24
7	12	8.1%	-2000	171	-37	28000	5 1.8%	28
8	1	0.7%	0	258	0	32000	6 2.1%	32
TOTAL	148		2000	287	37	36000	3 1.1%	36
			4000	227	75	40000	4 1.4%	40
2-GATE SORTS		133	6000	113	112	44000	2 0.7%	44
DETECTR	SORTS	FREQ%	8000	60	149	48000	0 0.0%	48
8			10000	12	187	52000	5 1.8%	52
9	9	6.8%	12000	4	224	56000	3 1.1%	56
10	17	12.8%	14000	2	261	60000	4 1.4%	60
11	27	20.3%	16000	0	299	64000	3 1.1%	64
12	28	21.1%	18000	0	336	68000	0 0.0%	68
13	27	20.3%	20000	0	373	72000	1 0.4%	72
14	21	15.8%	22000	0	410	76000	0 0.0%	76
15	4	3.0%	24000	0	448	80000	2 0.7%	80
TOTAL	133		26000	0	485	84000	0 0.0%	84
			>28000	0	0	>84000	0 0.0%	>84
			TOTAL	1259		TOTAL	281	

SUMMARY TOTALS

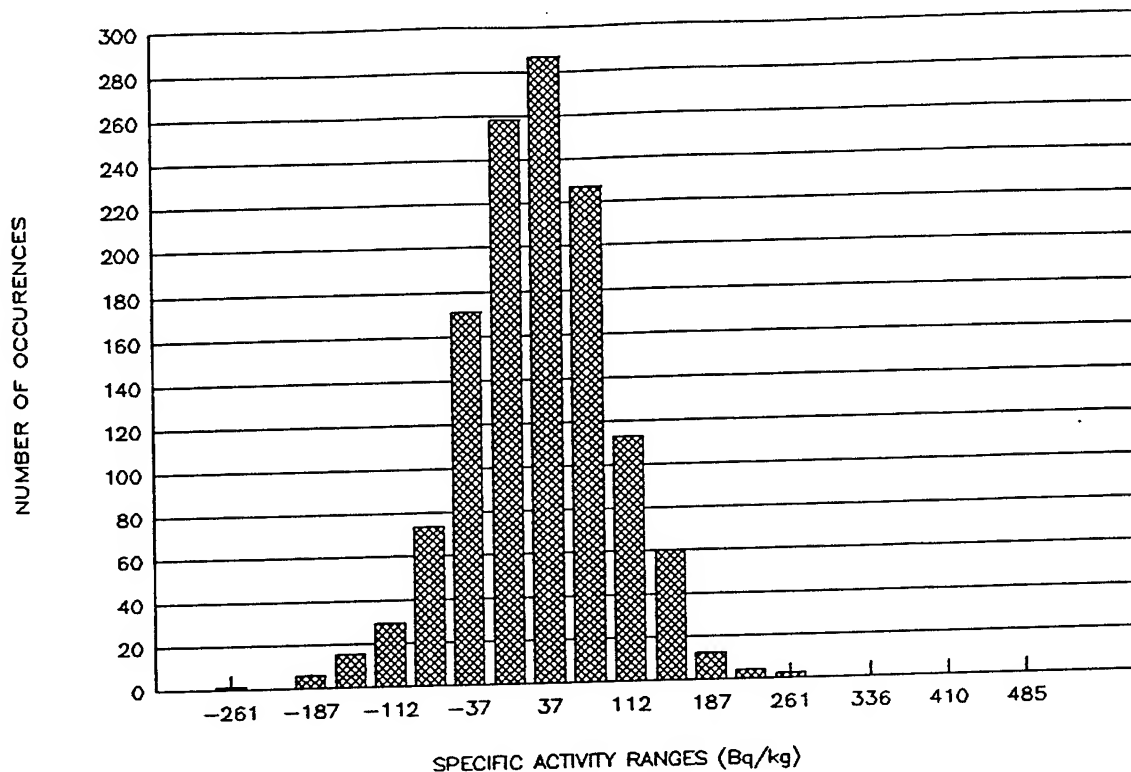
HOT PARTICLE EVENTS	276	SORTS BY ONE GATE ONLY	148
MULTIPARTICLE EVENTS	449	SORTS BY TWO GATES	133
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

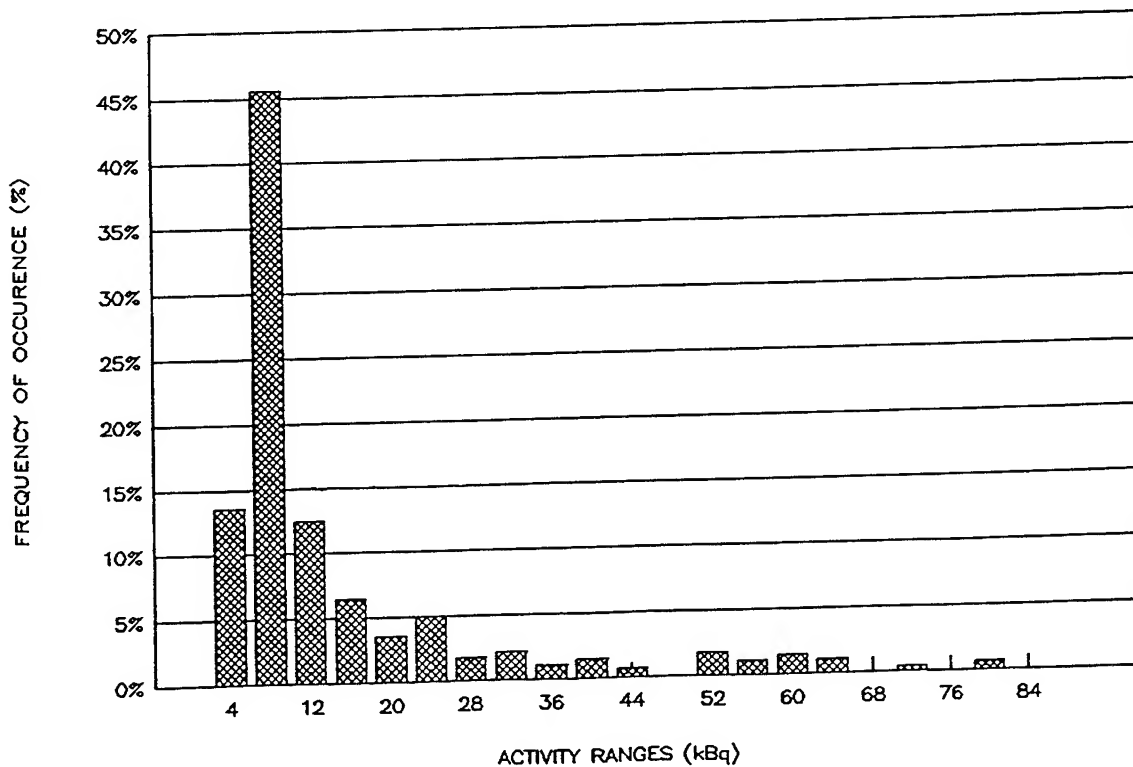
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 16-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 16-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 15-Apr-93

AVERAGE BACKGROUND COUNT RATE 0.70 ± 0.02 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.02 tons	11.2 tons
MAXIMUM/SORT	2.7 kg	53.6 kg
MINIMUM/SORT	0.7 kg	50.9 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		99.8%
EQUIVALENT SOIL-IN-GROUND	0.02 yd ³	8.9 yd ³ 8.9 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	399 kBq
MAXIMUM/SORT	77 kBq
MINIMUM/SORT	4.2 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

	171 kBq	(164)kBq
MAXIMUM/SORT	57 kBq	7 kBq
MINIMUM/SORT	0 Bq	-8 kBq
SPECIFIC ACTIVITY	7,263 Bq/kg	(15)Bq/kg

WORK HISTORY

WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	08:15 AM
START SOIL PROCESSING	06:46 AM	END SOIL PROCESSING	07:56 AM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.5 hr
AVAILABLE HOURS	2.3 hr
ACTUAL PROCESS HOURS (total 20-sec records)	1.17 hr
DOWN-TIME	1.08 hr
TOTAL SYSTEM PAUSE	0.00 hr
NONAVAILABLE HOURS	9.3 hr
START-UP	0.78 hr
SHUT-DOWN	0.31 hr
PLANT PERFORMANCE	51.9%
PRODUCTIVITY	10.1%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)

230

NONPROCESS RECORDS (Test, calibration, etc)

2

20-SEC PROCESS RECORDS

210

TOTAL SORT	0 MD>0 & MND=0
NO SORT	192 AD=0 & MD=0 & MND>0
SOME SORT	18 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	0
AD=0 & MD	0
AD<0 & MD	0
ACT_P <5 kBq	3 15.0%

UNEXPLAIN	PAUSE
TIME	TIME
None	None

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 2,100
 2-SEC RECORDS WITH SORTS 20 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 6 75.0%
 3 DETECTORS 2 25.0%
 4 DETECTORS 0 0.0%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 8
 NET 2-SEC RECORDS WITH SORTS 12
 2-SEC PERIODS WITH NO SORTS 2,088
 AVG TIME BETWEEN 2-SEC SORTS 350.0 sec

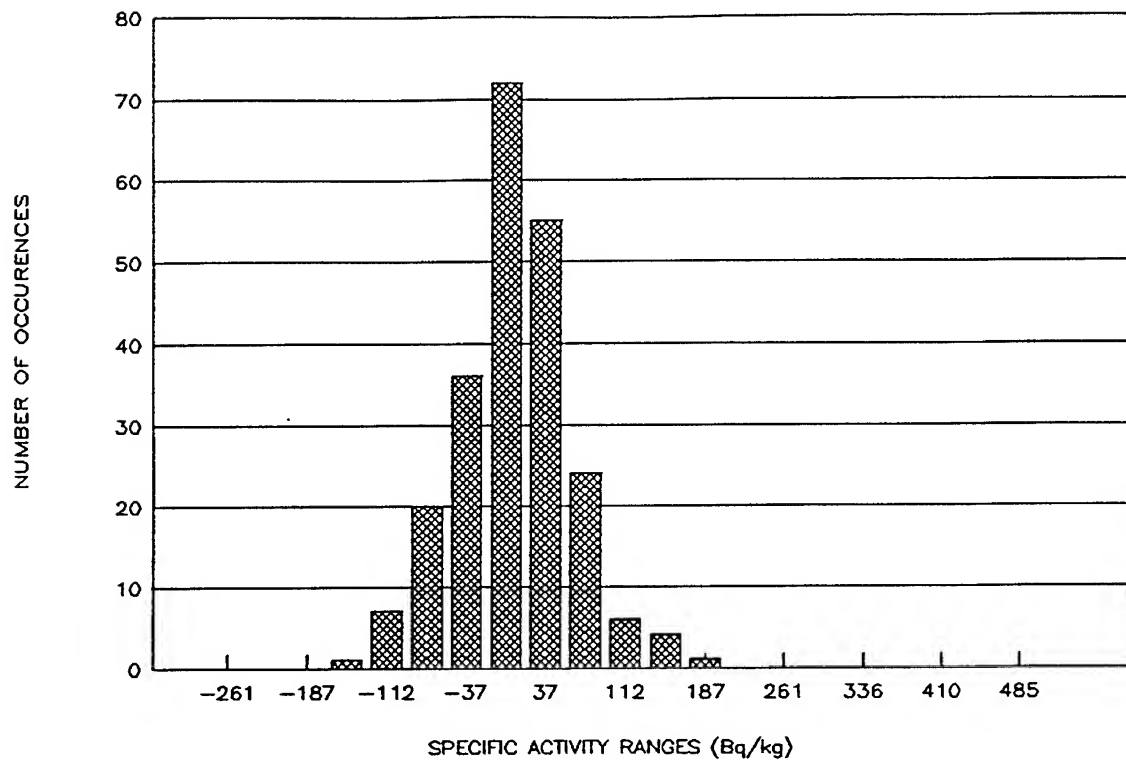
1-GATE SORTS		9	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%		ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	0	0.0%	-14000	0	-261	4000	0	0.0%	4
2	1	11.1%	-12000	0	-224	8000	9	45.0%	8
3	1	11.1%	-10000	0	-187	12000	1	5.0%	12
4	3	33.3%	-8000	1	-149	16000	3	15.0%	16
5	4	44.4%	-6000	6	-112	20000	2	10.0%	20
6	0	0.0%	-4000	18	-75	24000	1	5.0%	24
7	0	0.0%	-2000	34	-37	28000	0	0.0%	28
8	0	0.0%	0	69	0	32000	0	0.0%	32
TOTAL	9		2000	54	37	36000	0	0.0%	36
			4000	23	75	40000	0	0.0%	40
			6000	6	112	44000	1	5.0%	44
2-GATE SORTS		11	8000	1	149	48000	0	0.0%	48
DETECTR	SORTS	FREQ%				52000	1	5.0%	52
8			10000	0	187	56000	0	0.0%	56
9	0	0.0%	12000	0	224	60000	0	0.0%	60
10	1	9.1%	14000	0	261	64000	1	5.0%	64
11	3	27.3%	16000	0	299	68000	0	0.0%	68
12	5	45.5%	18000	0	336	72000	0	0.0%	72
13	1	9.1%	20000	0	373	76000	0	0.0%	76
14	0	0.0%	22000	0	410	80000	1	5.0%	80
15	1	9.1%	24000	0	448	84000	0	0.0%	84
TOTAL	11		26000	0	485	>84000	0	0.0%	>84
			>28000	0	0				
			TOTAL	212		TOTAL	20		

SUMMARY TOTALS			
HOT PARTICLE EVENTS	21	SORTS BY ONE GATE ONLY	9
MULTIPARTICLE EVENTS	14	SORTS BY TWO GATES	11
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION
 1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

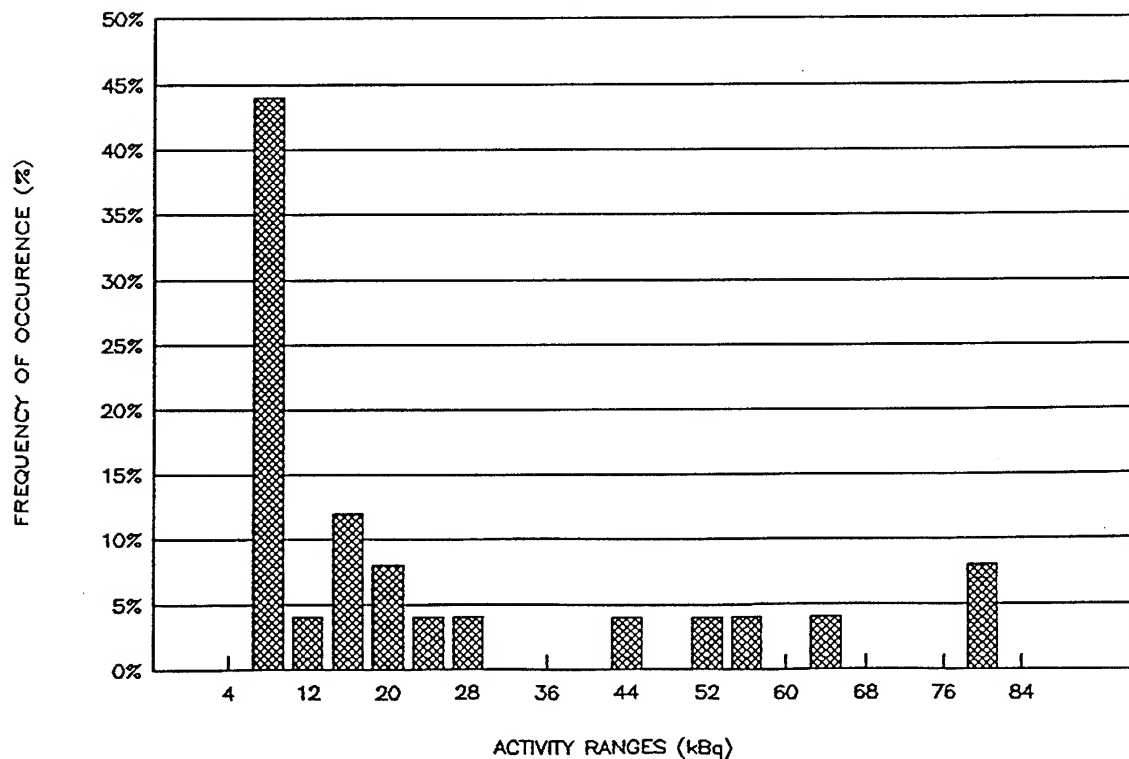
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 15-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 15-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 15-Apr-93

AVERAGE BACKGROUND COUNT RATE	0.75 ± 0.04 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	0.08 tons	11.3 tons	
MAXIMUM/SORT	56.2 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	51.6 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.3%
EQUIVALENT SOIL-IN-GROUND	0.07 yd ³	8.9 yd ³	9.0 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	244 kBq		
MAXIMUM/SORT	56 kBq		
MINIMUM/SORT	3.3 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	130 kBq	36 kBq	
MINIMUM/SORT	43 kBq	9 kBq	
SPECIFIC ACTIVITY	0 Bq	-8 kBq	
	1,542 Bq/kg	3 Bq/kg	
WORK HISTORY			
WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	08:15 AM
START SOIL PROCESSING	06:46 AM	END SOIL PROCESSING	07:56 AM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS	11.5 hr		
AVAILABLE HOURS	2.3 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	1.18 hr		
DOWN-TIME	1.07 hr		
TOTAL SYSTEM PAUSE	0.00 hr		
NONAVAILABLE HOURS	9.3 hr		
START-UP	0.78 hr		
SHUT-DOWN	0.30 hr		
PLANT PERFORMANCE	52.3%		
PRODUCTIVITY	10.2%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	231		
NONPROCESS RECORDS (Test, calibration, etc)	0		
20-SEC PROCESS RECORDS	212		
TOTAL SORT	1 MD>0 & MND=0		
NO SORT	182 AD=0 & MD=0 & MND>0		
SOME SORT	29 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0		UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	None	None
ACT_P <5 kBq	5 26.3%		

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 2,120
 2-SEC RECORDS WITH SORTS 19 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 4 80.0%
 3 DETECTORS 1 20.0%
 4 DETECTORS 0 0.0%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 5
 NET 2-SEC RECORDS WITH SORTS 14
 2-SEC PERIODS WITH NO SORTS 2,106
 AVG TIME BETWEEN 2-SEC SORTS 302.9 sec

1-GATE SORTS DETECTR	SORTS	9 FREQ%	ACT_NO (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT FREQ (#)	ACT_P (kBq)
1	0	0.0%	-14000	0	-261	4000	2 10.5%	4
2	1	11.1%	-12000	0	-224	8000	8 42.1%	8
3	3	33.3%	-10000	0	-187	12000	3 15.8%	12
4	2	22.2%	-8000	1	-149	16000	3 15.8%	16
5	2	22.2%	-6000	3	-112	20000	0 0.0%	20
6	1	11.1%	-4000	12	-75	24000	1 5.3%	24
7	0	0.0%	-2000	32	-37	28000	0 0.0%	28
8	0	0.0%	0	56	0	32000	0 0.0%	32
TOTAL	9		2000	55	37	36000	0 0.0%	36
			4000	33	75	40000	0 0.0%	40
2-GATE SORTS		10	6000	14	112	44000	1 5.3%	44
DETECTR	SORTS	FREQ%	8000	4	149	48000	0 0.0%	48
8			10000	2	187	52000	0 0.0%	52
9	0	0.0%	12000	0	224	56000	1 5.3%	56
10	2	20.0%	14000	0	261	60000	0 0.0%	60
11	2	20.0%	16000	0	299	64000	0 0.0%	64
12	3	30.0%	18000	0	336	68000	0 0.0%	68
13	3	30.0%	20000	0	373	72000	0 0.0%	72
14	0	0.0%	22000	0	410	76000	0 0.0%	76
15	0	0.0%	24000	0	448	80000	0 0.0%	80
TOTAL	10		26000	0	485	84000	0 0.0%	84
			>28000	0	0	>84000	0 0.0%	>84
			TOTAL	212		TOTAL	19	

SUMMARY TOTALS

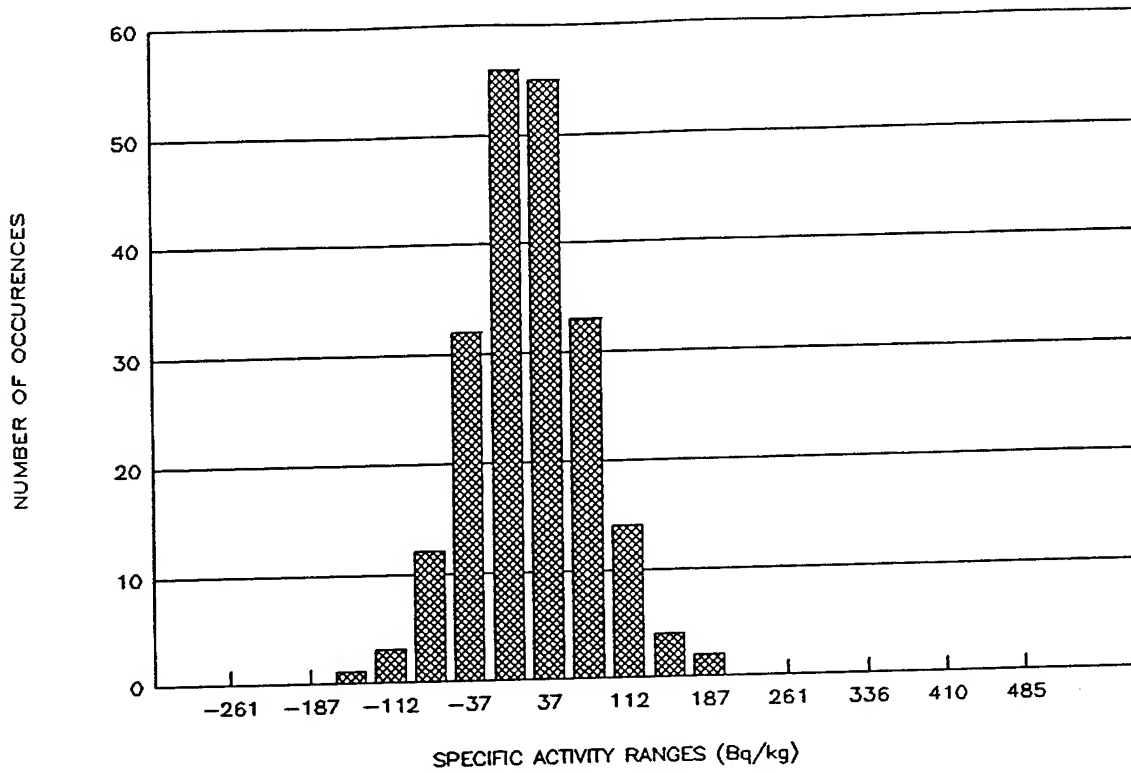
HOT PARTICLE EVENTS	20	SORTS BY ONE GATE ONLY	9
MULTIPARTICLE EVENTS	22	SORTS BY TWO GATES	10
DISTRIBUTED EVENTS	83		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

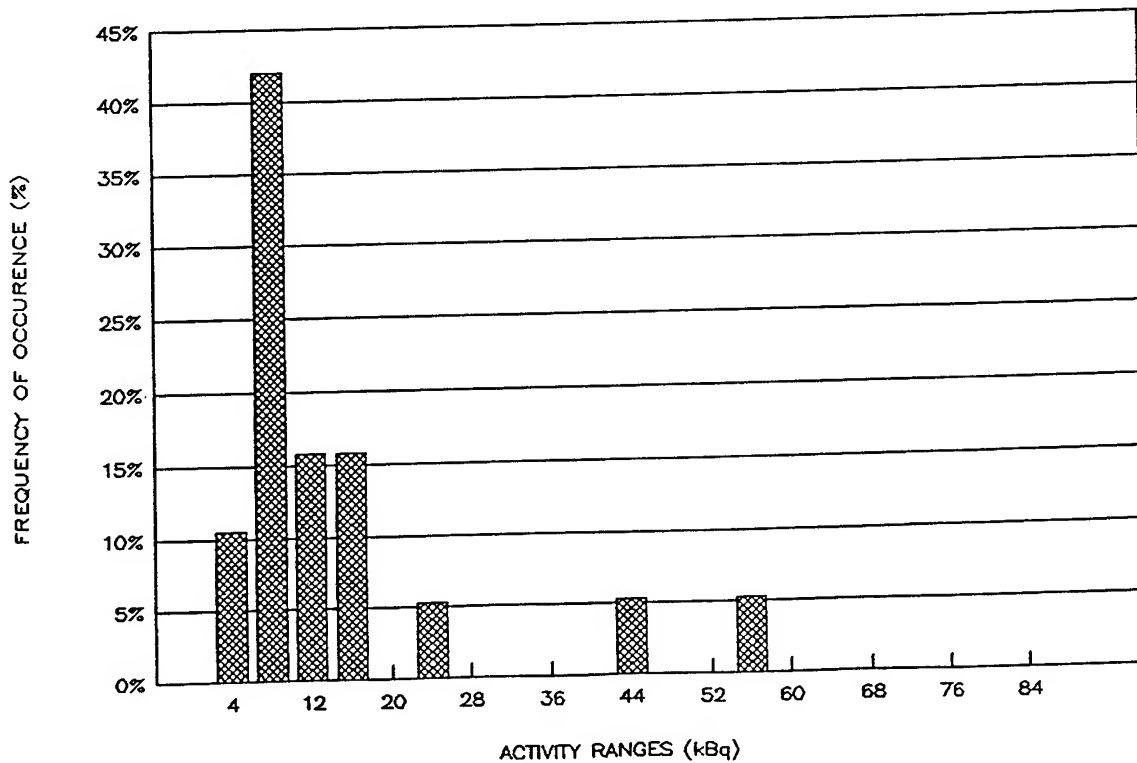
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 15-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 15-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 14-Apr-93

AVERAGE BACKGROUND COUNT RATE 0.70 ± 0.01 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.17 tons	45.6 tons
MAXIMUM/SORT	3.3 kg	53.6 kg
MINIMUM/SORT	0.7 kg	50.2 kg
WEIGHT RECOVERY OR VOLUME RECOVERY		99.6%
EQUIVALENT SOIL-IN-GROUND	0.14 yd³	36.1 yd³ 36.3 yd³/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	3,957 kBq
MAXIMUM/SORT	783 kBq
MINIMUM/SORT	2.4 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	1,633 kBq	1,168 kBq
MAXIMUM/SORT	606 kBq	17 kBq
MINIMUM/SORT	0 Bq	-7 kBq
SPECIFIC ACTIVITY	9,544 Bq/kg	26 Bq/kg

WORK HISTORY

WORK DAY START	06:55 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:55 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	12:16 PM	END SOIL PROCESSING	05:00 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr

WORK HOURS	10.1 hr
AVAILABLE HOURS	10.1 hr
ACTUAL PROCESS HOURS (total 20-sec records)	4.74 hr
DOWN-TIME	5.34 hr
TOTAL SYSTEM PAUSE	5.52 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	5.35 hr
SHUT-DOWN	0.49 hr
PLANT PERFORMANCE	47.1%
PRODUCTIVITY	47.1%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 1,032
 NONPROCESS RECORDS (Test, calibration, etc) 4

20-SEC PROCESS RECORDS	854
TOTAL SORT	0 MD>0 & MND=0
NO SORT	714 AD=0 & MD=0 & MND>0
SOME SORT	140 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	1
AD=0 & MD	0
AD<0 & MD	0
ACT_P <5 kBq	63 35.4%

UNEXPLAIN	PAUSE
TIME	TIME
16:06:08	06:55
	17:00

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 8,540
 2-SEC RECORDS WITH SORTS 178 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 36 73.5%
 3 DETECTORS 9 18.4%
 4 DETECTORS 2 4.1%
 5 DETECTORS 2 4.1%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 49
 NET 2-SEC RECORDS WITH SORTS 129
 2-SEC PERIODS WITH NO SORTS 8,411
 AVG TIME BETWEEN 2-SEC SORTS 132.4 sec

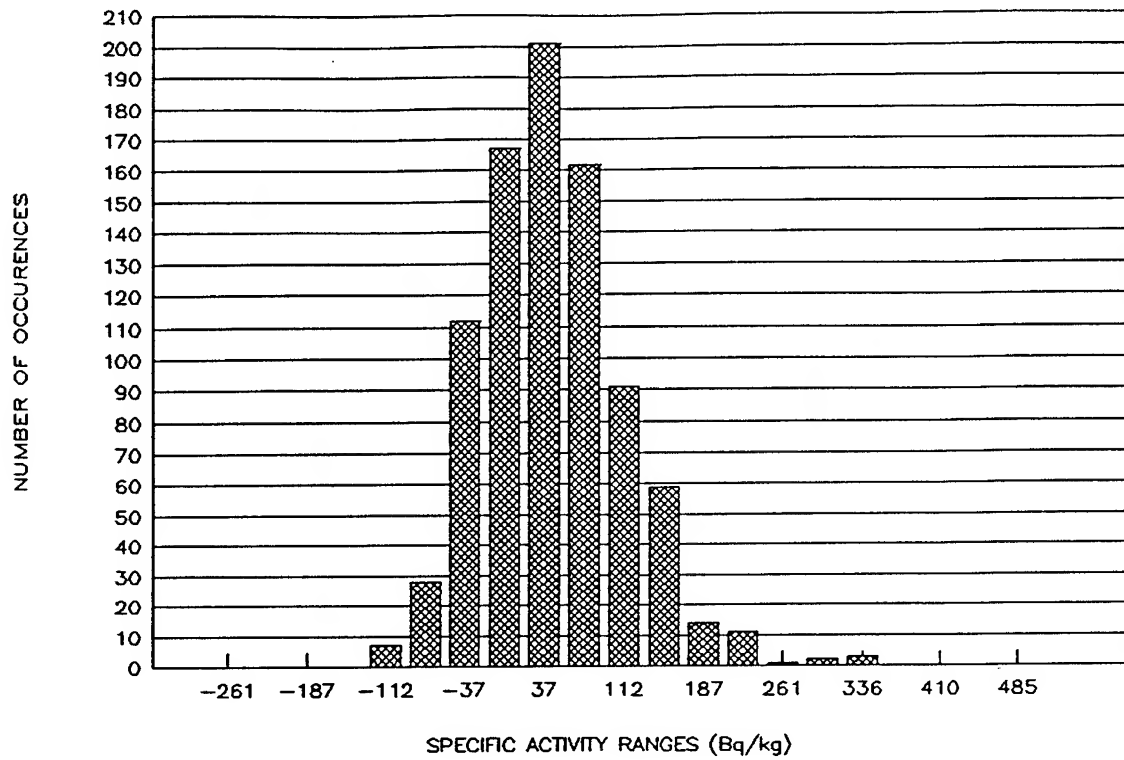
1-GATE SORTS		91	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	1	1.1%	-14000	0	-261	4000	38	21.3%
2	5	5.5%	-12000	0	-224	8000	69	38.8%
3	11	12.1%	-10000	0	-187	12000	12	6.7%
4	20	22.0%	-8000	0	-149	16000	19	10.7%
5	24	26.4%	-6000	7	-112	20000	5	2.8%
6	15	16.5%	-4000	28	-75	24000	7	3.9%
7	13	14.3%	-2000	112	-37	28000	4	2.2%
8	2	2.2%	0	167	0	32000	4	2.2%
TOTAL	91		2000	201	37	36000	2	1.1%
			4000	162	75	40000	1	0.6%
			6000	91	112	44000	0	0.0%
2-GATE SORTS		87	8000	59	149	48000	3	1.7%
DETECTR	SORTS	FREQ%	10000	14	187	52000	1	0.6%
8			12000	11	224	56000	2	1.1%
9	2	2.3%	14000	1	261	60000	2	1.1%
10	7	8.0%	16000	2	299	64000	2	1.1%
11	17	19.5%	18000	3	336	68000	0	0.0%
12	17	19.5%	20000	0	373	72000	0	0.0%
13	18	20.7%	22000	0	410	76000	0	0.0%
14	15	17.2%	24000	0	448	80000	0	0.0%
15	11	12.6%	26000	0	485	84000	1	0.6%
TOTAL	87		>28000	0	0	>84000	6	3.4%
			TOTAL	858		TOTAL	178	
SUMMARY TOTALS								
HOT PARTICLE EVENTS		177	SORTS BY ONE GATE ONLY			91		
MULTIPARTICLE EVENTS		79	SORTS BY TWO GATES			87		
DISTRIBUTED EVENTS		0						

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 14-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 14-Apr-93

AVERAGE BACKGROUND COUNT RATE	0.77 ± 0.04 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		0.26 tons	45.5 tons
MAXIMUM/SORT		4.7 kg	53.6 kg
MINIMUM/SORT		0.7 kg	48.9 kg
			99.4%
WEIGHT RECOVERY OR VOLUME RECOVERY			
EQUIVALENT SOIL-IN-GROUND	0.21 yd ³	36.0 yd ³	36.2 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	4,326 kBq		
MAXIMUM/SORT	503 kBq		
MINIMUM/SORT	2.7 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	1,951 kBq	2,041 kBq	
MINIMUM/SORT	375 kBq	17 kBq	
SPECIFIC ACTIVITY	0 Bq	-9 kBq	
	7,520 Bq/kg	45 Bq/kg	
WORK HISTORY			
WORK DAY START	06:55 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:55 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	12:16 PM	END SOIL PROCESSING	05:00 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr
WORK HOURS		10.1 hr	
AVAILABLE HOURS		10.1 hr	
ACTUAL PROCESS HOURS (total 20-sec records)		4.74 hr	
DOWN-TIME		5.34 hr	
TOTAL SYSTEM PAUSE		5.34 hr	
NONAVAILABLE HOURS		0.0 hr	
START-UP		5.35 hr	
SHUT-DOWN		0.50 hr	
PLANT PERFORMANCE		47.0%	
PRODUCTIVITY		47.0%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)		1,045	
NONPROCESS RECORDS (Test, calibration, etc)		4	
20-SEC PROCESS RECORDS		853	
TOTAL SORT		0 MD>0 & MND=0	
NO SORT		624 AD=0 & MD=0 & MND>0	
SOME SORT		229 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS		0	
0<AD<1kBq & MD>0	1		UNEXPLAIN PAUSE
AD=0 & MD	0		TIME TIME
AD<0 & MD	0		14:48:49 06:55
ACT_P <5 kBq	49	25.5%	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 8,530
 2-SEC RECORDS WITH SORTS 192 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 45 90.0%
 3 DETECTORS 5 10.0%
 4 DETECTORS 0 0.0%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 50
 NET 2-SEC RECORDS WITH SORTS 142
 2-SEC PERIODS WITH NO SORTS 8,388
 AVG TIME BETWEEN 2-SEC SORTS 120.1 sec

1-GATE SORTS DETECTR	SORTS	99 FREQ%	ACT_ND (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT (#)	FREQ%	ACT_P (kBq)
1	1	1.0%	-14000	0	-261	4000	15	7.8%	4
2	9	9.1%	-12000	0	-224	8000	85	44.3%	8
3	20	20.2%	-10000	2	-187	12000	24	12.5%	12
4	22	22.2%	-8000	3	-149	16000	20	10.4%	16
5	24	24.2%	-6000	2	-112	20000	8	4.2%	20
6	14	14.1%	-4000	19	-75	24000	6	3.1%	24
7	8	8.1%	-2000	53	-37	28000	4	2.1%	28
8	1	1.0%	0	129	0	32000	3	1.6%	32
TOTAL	99		2000	192	37	36000	1	0.5%	36
			4000	197	75	40000	4	2.1%	40
2-GATE SORTS		93	6000	147	112	44000	3	1.6%	44
DETECTR	SORTS	FREQ%	8000	62	149	48000	0	0.0%	48
8			10000	28	187	52000	3	1.6%	52
9	2	2.2%	12000	16	224	56000	0	0.0%	56
10	14	15.1%	14000	4	261	60000	2	1.0%	60
11	22	23.7%	16000	2	299	64000	1	0.5%	64
12	15	16.1%	18000	1	336	68000	2	1.0%	68
13	24	25.8%	20000	0	373	72000	0	0.0%	72
14	13	14.0%	22000	0	410	76000	1	0.5%	76
15	3	3.2%	24000	0	448	80000	2	1.0%	80
TOTAL	93		26000	0	485	84000	1	0.5%	84
			>28000	0	0	>84000	7	3.6%	>84
			TOTAL	857		TOTAL	192		

SUMMARY TOTALS

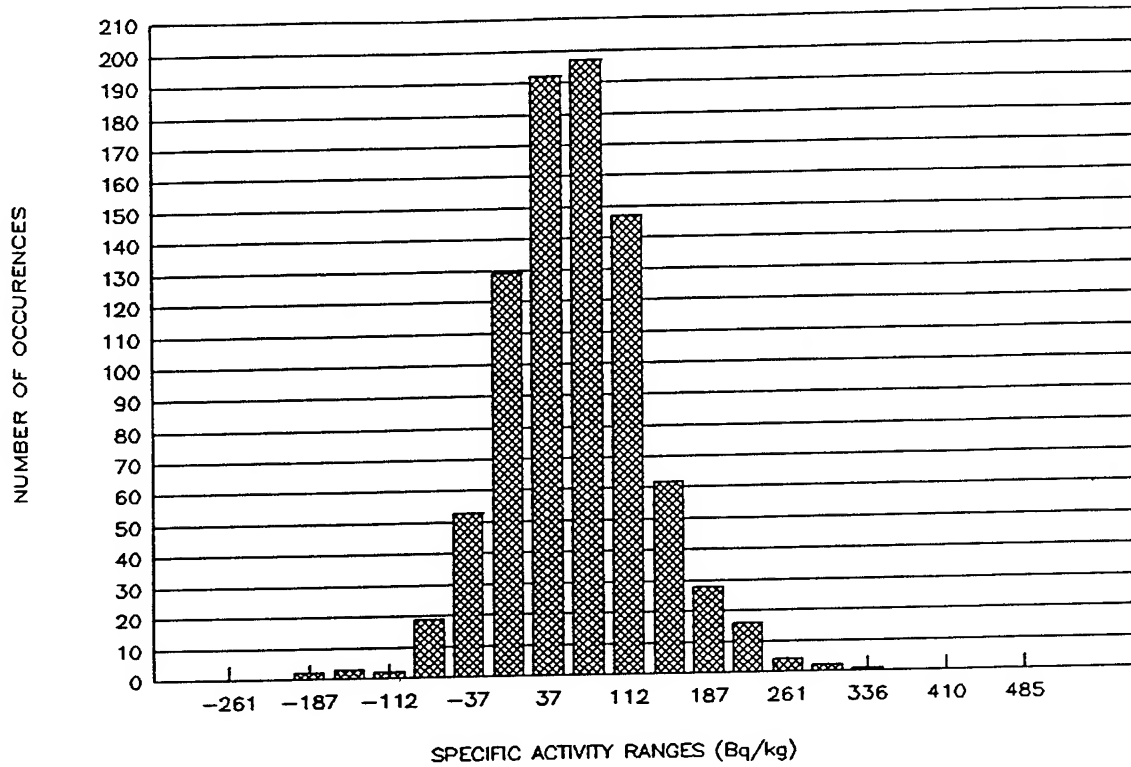
HOT PARTICLE EVENTS	189	SORTS BY ONE GATE ONLY	99
MULTIPARTICLE EVENTS	196	SORTS BY TWO GATES	93
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 14-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 13-Apr-93

AVERAGE BACKGROUND COUNT RATE 0.70 ± 0.03 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	10.00 tons	87.2 tons
MAXIMUM/SORT	56.2 kg	53.6 kg
MINIMUM/SORT	0.7 kg	44.2 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		89.7%
EQUIVALENT SOIL-IN-GROUND	7.92 yd ³	69.1 yd ³ 77.1 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	20,678 kBq
MAXIMUM/SORT	2,285 kBq
MINIMUM/SORT	2.1 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	13,538 kBq	6,446 kBq
MAXIMUM/SORT	1530 kBq	21 kBq
MINIMUM/SORT	0 Bq	-8 kBq
SPECIFIC ACTIVITY	1,354 Bq/kg	74 Bq/kg

WORK HISTORY

WORK DAY START	05:57 AM	WORK DAY END	05:30 PM
PLANT START-UP	05:57 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:26 AM	END SOIL PROCESSING	05:01 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.5 hr
AVAILABLE HOURS	11.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.08 hr
DOWN-TIME	1.47 hr
TOTAL SYSTEM PAUSE	0.88 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.49 hr
SHUT-DOWN	0.47 hr
PLANT PERFORMANCE	87.3%
PRODUCTIVITY	87.3%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,789
NONPROCESS RECORDS (Test, calibration, etc)	24

20-SEC PROCESS RECORDS	1,814		
TOTAL SORT	173 MD>0 & MND=0		
NO SORT	1,145 AD=0 & MD=0 & MND>0		
SOME SORT	496 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	2	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	10:35:38	05:57
ACT_P <5 kBq	331 33.9%	16:04:18	06:31

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 18,140
 2-SEC RECORDS WITH SORTS 975 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 204 75.6%
 3 DETECTORS 53 19.6%
 4 DETECTORS 10 3.7%
 5 DETECTORS 3 1.1%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 270
 NET 2-SEC RECORDS WITH SORTS 705
 2-SEC PERIODS WITH NO SORTS 17,435
 AVG TIME BETWEEN 2-SEC SORTS 51.5 sec

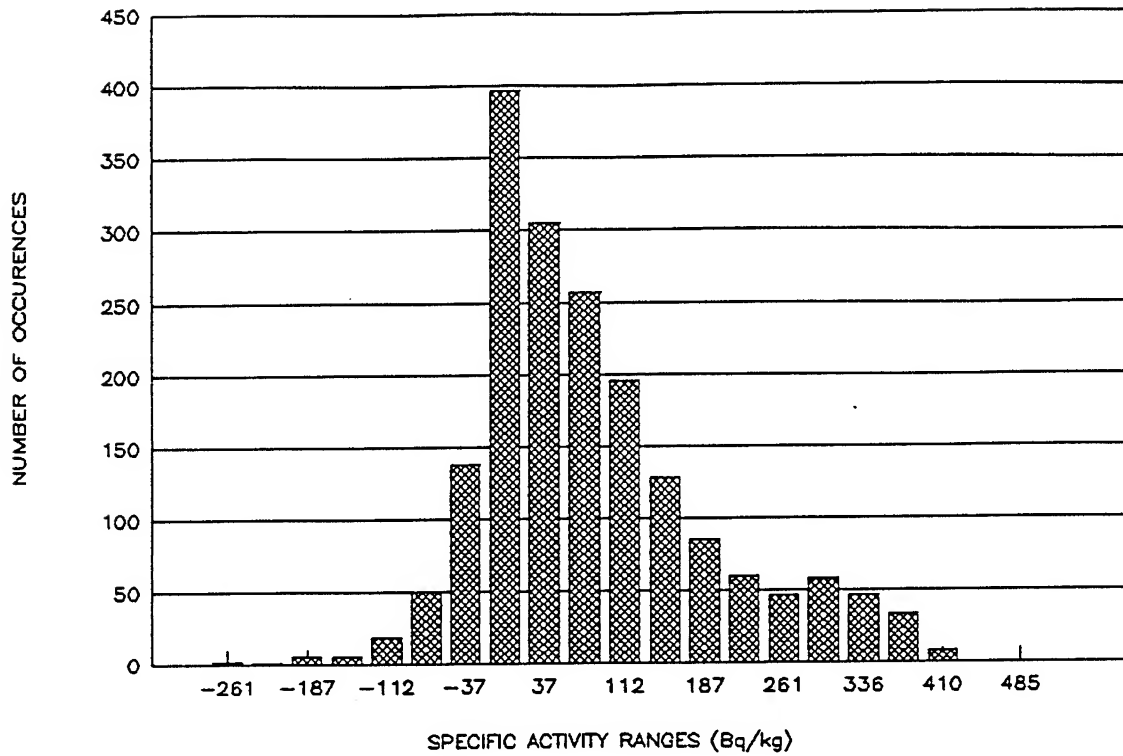
1-GATE SORTS DETECTR	487 SORTS	ACT_FREQ% FREQ%	ACT_ND (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT (#)	FREQ%	ACT_P (kBq)
1	7	1.4%	-14000	2	-261	4000	161	16.5%	4
2	30	6.2%	-12000	1	-224	8000	406	41.6%	8
3	67	13.8%	-10000	5	-187	12000	123	12.6%	12
4	88	18.1%	-8000	5	-149	16000	70	7.2%	16
5	123	25.3%	-6000	18	-112	20000	44	4.5%	20
6	76	15.6%	-4000	50	-75	24000	23	2.4%	24
7	78	16.0%	-2000	138	-37	28000	26	2.7%	28
8	18	3.7%	0	397	0	32000	19	1.9%	32
TOTAL	487		2000	305	37	36000	19	1.9%	36
			4000	257	75	40000	9	0.9%	40
			6000	196	112	44000	3	0.3%	44
2-GATE SORTS	488		8000	128	149	48000	8	0.8%	48
DETECTR	SORTS	FREQ%				52000	7	0.7%	52
8			10000	85	187	56000	5	0.5%	56
9	11	2.3%	12000	60	224	60000	7	0.7%	60
10	54	11.1%	14000	46	261	64000	6	0.6%	64
11	70	14.3%	16000	58	299	68000	7	0.7%	68
12	107	21.9%	18000	46	336	72000	2	0.2%	72
13	117	24.0%	20000	33	373	76000	2	0.2%	76
14	80	16.4%	22000	8	410	80000	0	0.0%	80
15	49	10.0%	24000	0	448	84000	0	0.0%	84
TOTAL	488		26000	0	485	84000	0	0.0%	84
			>28000	0	0	>84000	28	2.9%	>84
			TOTAL	1838		TOTAL	975		
SUMMARY TOTALS									
HOT PARTICLE EVENTS			969	SORTS BY ONE GATE ONLY			487		
MULTIPARTICLE EVENTS			1052	SORTS BY TWO GATES			488		
DISTRIBUTED EVENTS			12900						

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

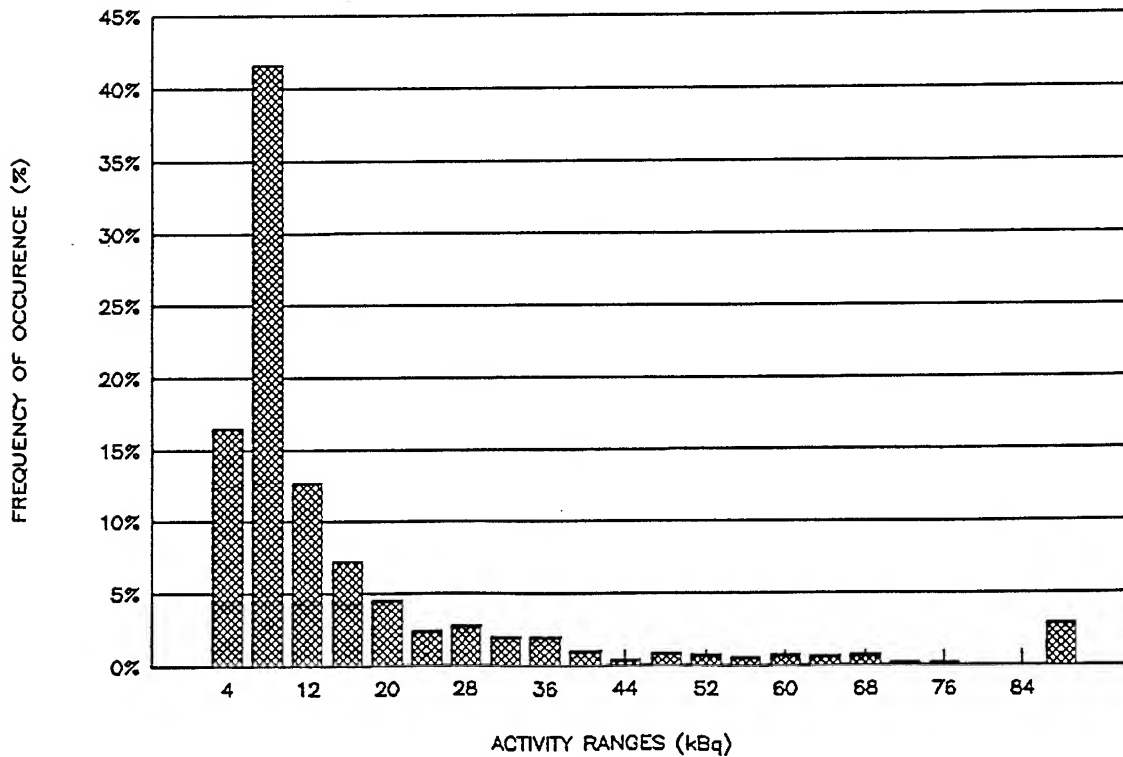
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 13-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 13-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 13-Apr-93

AVERAGE BACKGROUND COUNT RATE	0.77 ± 0.05 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		15.95 tons	80.4 tons
MAXIMUM/SORT		56.2 kg	53.6 kg
MINIMUM/SORT		0.7 kg	46.9 kg
			83.4%
WEIGHT RECOVERY OR VOLUME RECOVERY			
EQUIVALENT SOIL-IN-GROUND	12.64 yd ³	63.7 yd ³	76.3 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	25,099 kBq		
MAXIMUM/SORT	959 kBq		
MINIMUM/SORT	2.3 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	21,422 kBq	6,568 kBq	
MINIMUM/SORT	771 kBq	20 kBq	
SPECIFIC ACTIVITY	0 Bq	-12 kBq	
	1,343 Bq/kg	82 Bq/kg	
WORK HISTORY			
WORK DAY START	05:57 AM	WORK DAY END	05:30 PM
PLANT START-UP	05:57 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:25 AM	END SOIL PROCESSING	05:01 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS		11.5 hr	
AVAILABLE HOURS		11.5 hr	
ACTUAL PROCESS HOURS (total 20-sec records)		9.98 hr	
DOWN-TIME		1.57 hr	
TOTAL SYSTEM PAUSE		1.00 hr	
NONAVAILABLE HOURS		0.0 hr	
START-UP		0.48 hr	
SHUT-DOWN		0.47 hr	
PLANT PERFORMANCE		86.4%	
PRODUCTIVITY		86.4%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)		3,076	
NONPROCESS RECORDS (Test, calibration, etc)		21	
20-SEC PROCESS RECORDS		1,797	
TOTAL SORT		279 MD>0 & MND=0	
NO SORT		882 AD=0 & MD=0 & MND>0	
SOME SORT		636 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS		0	
0<AD<1kBq & MD>0	2		UNEXPLAIN PAUSE
AD=0 & MD	0		TIME TIME
AD<0 & MD	0		09:13:39 05:57
ACT_P <5 kBq	389 30.4%		10:05:19 06:31

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 17,970 12:46
 2-SEC RECORDS WITH SORTS 1,279 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 301 78.0%
 3 DETECTORS 71 18.4%
 4 DETECTORS 13 3.4%
 5 DETECTORS 1 0.3%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 386
 NET 2-SEC RECORDS WITH SORTS 893
 2-SEC PERIODS WITH NO SORTS 17,077
 AVG TIME BETWEEN 2-SEC SORTS 40.2 sec

1-GATE SORTS	654	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)
1	25	3.8%	-14000	3	-261	4000	182 14.2%
2	86	13.1%	-12000	2	-224	8000	540 42.2%
3	126	19.3%	-10000	4	-187	12000	190 14.9%
4	132	20.2%	-8000	5	-149	16000	80 6.3%
5	114	17.4%	-6000	15	-112	20000	62 4.8%
6	95	14.5%	-4000	46	-75	24000	38 3.0%
7	63	9.6%	-2000	108	-37	28000	25 2.0%
8	13	2.0%	0	476	0	32000	18 1.4%
TOTAL	654		2000	255	37	36000	13 1.0%
			4000	231	75	40000	15 1.2%
2-GATE SORTS	625		6000	166	112	44000	21 1.6%
DETECTR	SORTS	FREQ%	8000	136	149	48000	10 0.8%
8			10000	106	187	52000	5 0.4%
9	43	6.9%	12000	74	224	56000	8 0.6%
10	100	16.0%	14000	67	261	60000	8 0.6%
11	133	21.3%	16000	43	299	64000	7 0.5%
12	130	20.8%	18000	50	336	68000	3 0.2%
13	101	16.2%	20000	27	373	72000	4 0.3%
14	85	13.6%	22000	4	410	76000	5 0.4%
15	33	5.3%	24000	0	448	80000	0 0.0%
TOTAL	625		26000	0	485	84000	3 0.2%
			>28000	0	0	>84000	42 3.3%
			TOTAL	1818		TOTAL	1279

SUMMARY TOTALS

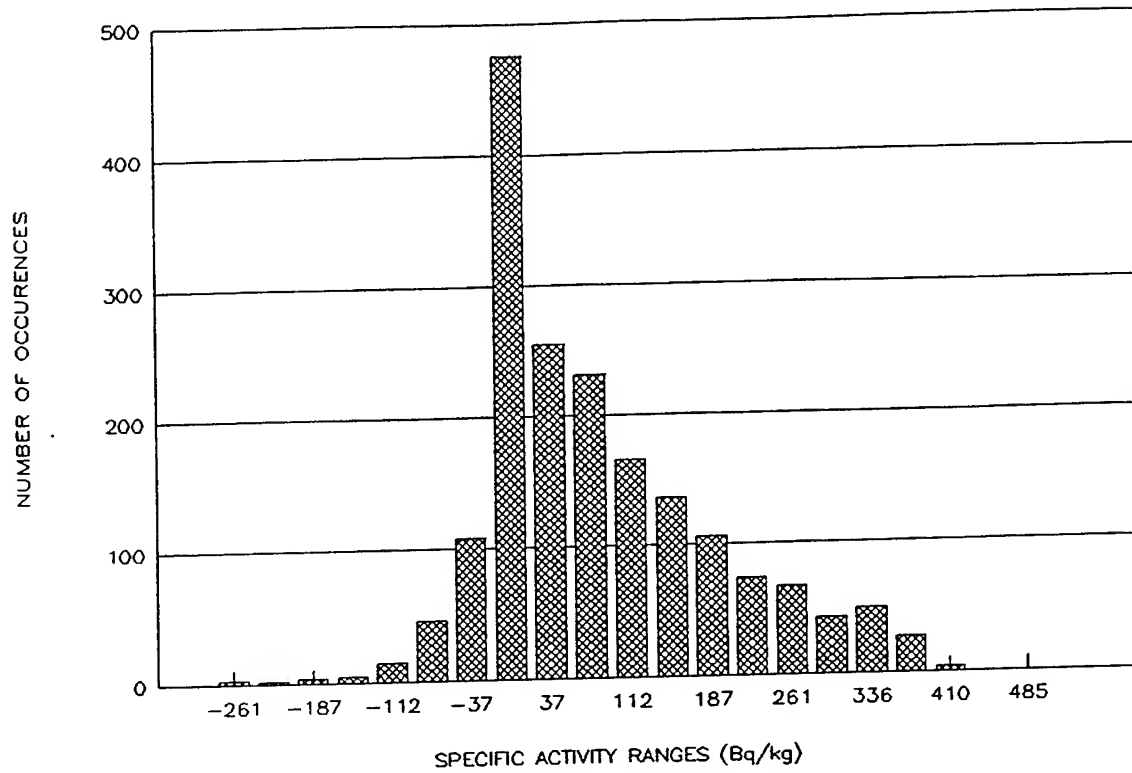
HOT PARTICLE EVENTS	1242	SORTS BY ONE GATE ONLY	654
MULTIPARTICLE EVENTS	2093	SORTS BY TWO GATES	625
DISTRIBUTED EVENTS	20466		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

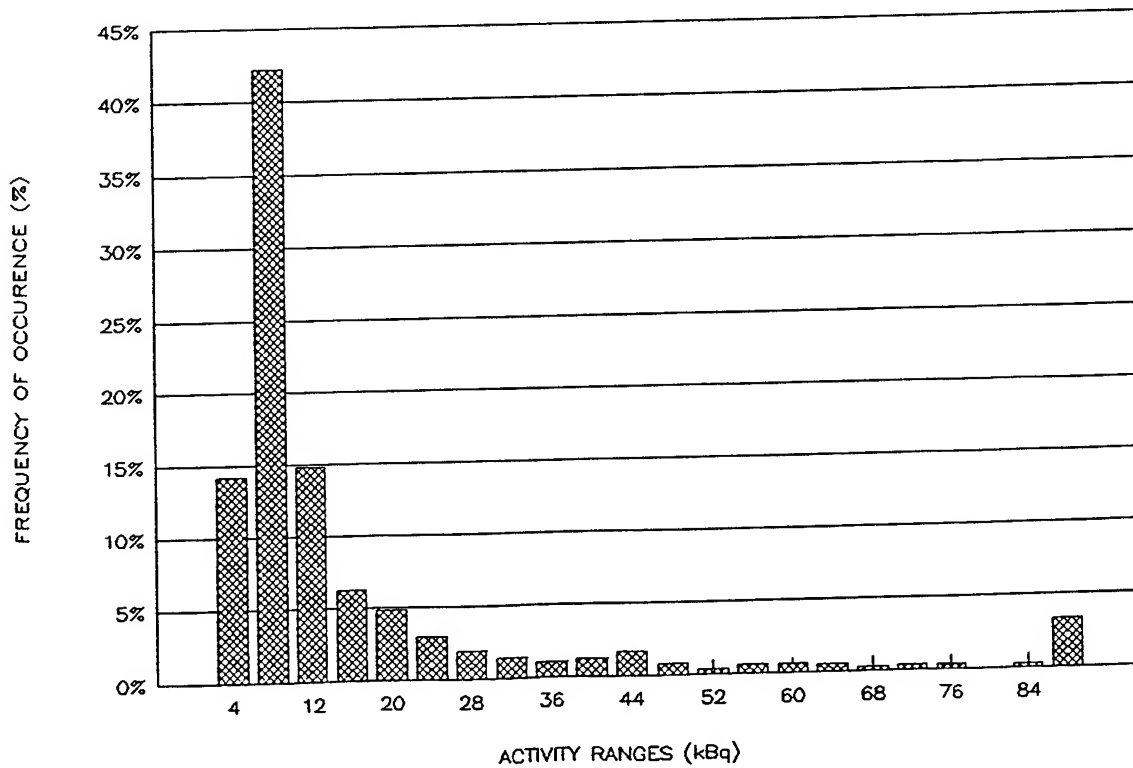
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 13-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 13-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 12-Apr-93

AVERAGE BACKGROUND COUNT RATE 0.75 ± 0.05 c/sec
 SORTER SOIL DENSITY 1.3 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN	
MASS TOTAL	9.01 tons	71.3 tons	
MAXIMUM/SORT	63.6 kg	60.5 kg	
MINIMUM/SORT	0.8 kg	51.5 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			88.8%
EQUIVALENT SOIL-IN-GROUND	7.14 yd ³	56.5 yd ³	63.7 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	27,283 kBq
MAXIMUM/SORT	2,368 kBq
MINIMUM/SORT	2.0 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

	14,855 kBq	7,452 kBq
MAXIMUM/SORT	1921 kBq	22 kBq
MINIMUM/SORT	0 Bq	-9 kBq
SPECIFIC ACTIVITY	1,649 Bq/kg	104 Bq/kg

WORK HISTORY

WORK DAY START	05:59 AM	WORK DAY END	05:30 PM
PLANT START-UP	05:59 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:28 AM	END SOIL PROCESSING	03:21 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.5 hr
AVAILABLE HOURS	11.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	7.37 hr
DOWN-TIME	4.14 hr
TOTAL SYSTEM PAUSE	2.00 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.49 hr
SHUT-DOWN	2.15 hr
PLANT PERFORMANCE	64.0%
PRODUCTIVITY	64.0%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)

NONPROCESS RECORDS (Test, calibration, etc)

20-SEC PROCESS RECORDS

TOTAL SORT	132 MD>0 & MND=0
NO SORT	644 AD=0 & MD=0 & MND>0
SOME SORT	551 AD>0&0<MD<MNDmax&MND<MNDmax

UNEXPLAINED RECORDS

0<AD<1kBq & MD>0	0	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	08:34:05	06:00
ACT_P <5 kBq	355 33.5%		07:41

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 13,270
 2-SEC RECORDS WITH SORTS 1,060 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 244 80.3%
 3 DETECTORS 50 16.4%
 4 DETECTORS 10 3.3%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 304
 NET 2-SEC RECORDS WITH SORTS 756
 2-SEC PERIODS WITH NO SORTS 12,514
 AVG TIME BETWEEN 2-SEC SORTS 35.1 sec

08:27
 08:32
 13:27

1-GATE SORTS DETECTR	SORTS	553 FREQ%	ACT_NO (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT FREQ% (#)	ACT_P (kBq)
1	12	2.2%	-14000	2	-231	4000	184 17.4%	4
2	29	5.2%	-12000	2	-198	8000	432 40.8%	8
3	83	15.0%	-10000	1	-165	12000	128 12.1%	12
4	100	18.1%	-8000	1	-132	16000	88 8.3%	16
5	126	22.8%	-6000	6	-99	20000	44 4.2%	20
6	86	15.6%	-4000	19	-66	24000	29 2.7%	24
7	86	15.6%	-2000	55	-33	28000	24 2.3%	28
8	31	5.6%	0	246	0	32000	17 1.6%	32
TOTAL	553		2000	162	33	36000	9 0.8%	36
			4000	153	66	40000	6 0.6%	40
			6000	144	99	44000	6 0.6%	44
2-GATE SORTS		507	8000	136	132	48000	8 0.8%	48
DETECTR	SORTS	FREQ%						
8			10000	84	165	52000	8 0.8%	52
9	19	3.7%	12000	82	198	56000	7 0.7%	56
10	53	10.5%	14000	66	231	60000	6 0.6%	60
11	86	17.0%	16000	52	264	64000	7 0.7%	64
12	96	18.9%	18000	51	298	68000	2 0.2%	68
13	106	20.9%	20000	42	331	72000	3 0.3%	72
14	82	16.2%	22000	30	364	76000	6 0.6%	76
15	65	12.8%	24000	0	397	80000	4 0.4%	80
TOTAL	507		26000	0	430	84000	5 0.5%	84
			>28000	0	0	>84000	37 3.5%	>84
			TOTAL	1334		TOTAL	1060	

SUMMARY TOTALS

HOT PARTICLE EVENTS 1053
 MULTIPARTICLE EVENTS 855
 DISTRIBUTED EVENTS 9989

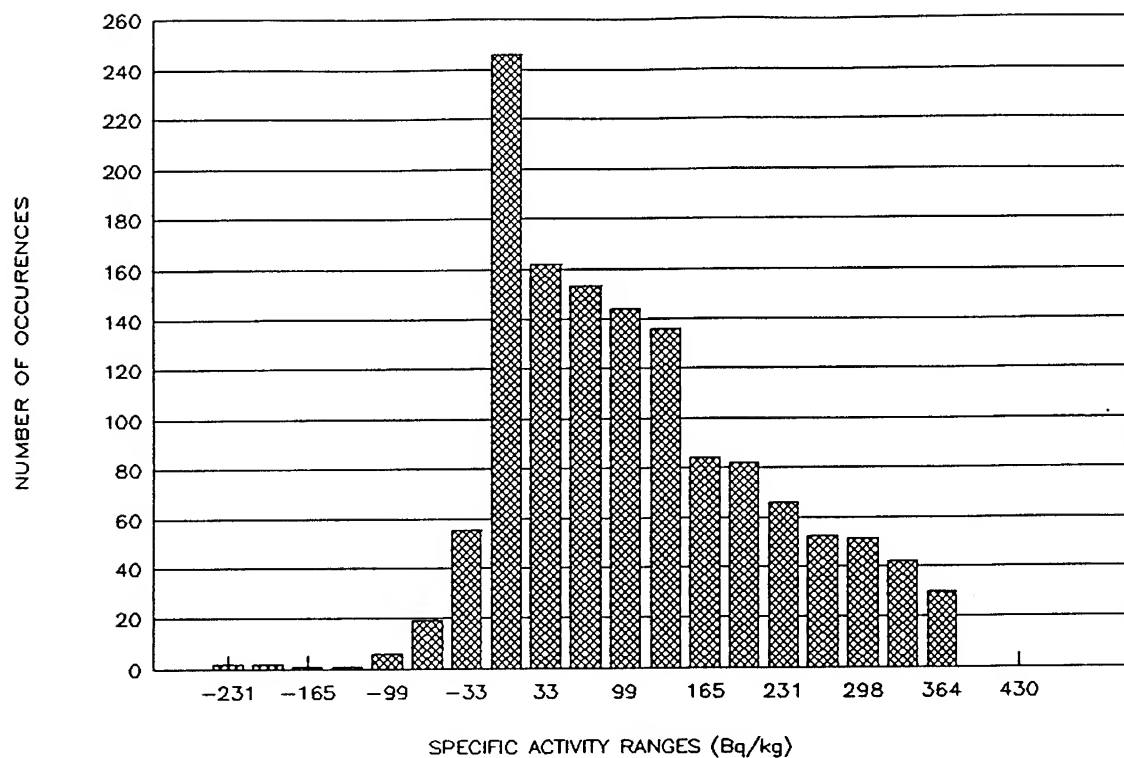
SORTS BY ONE GATE ONLY 553
 SORTS BY TWO GATES 507

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

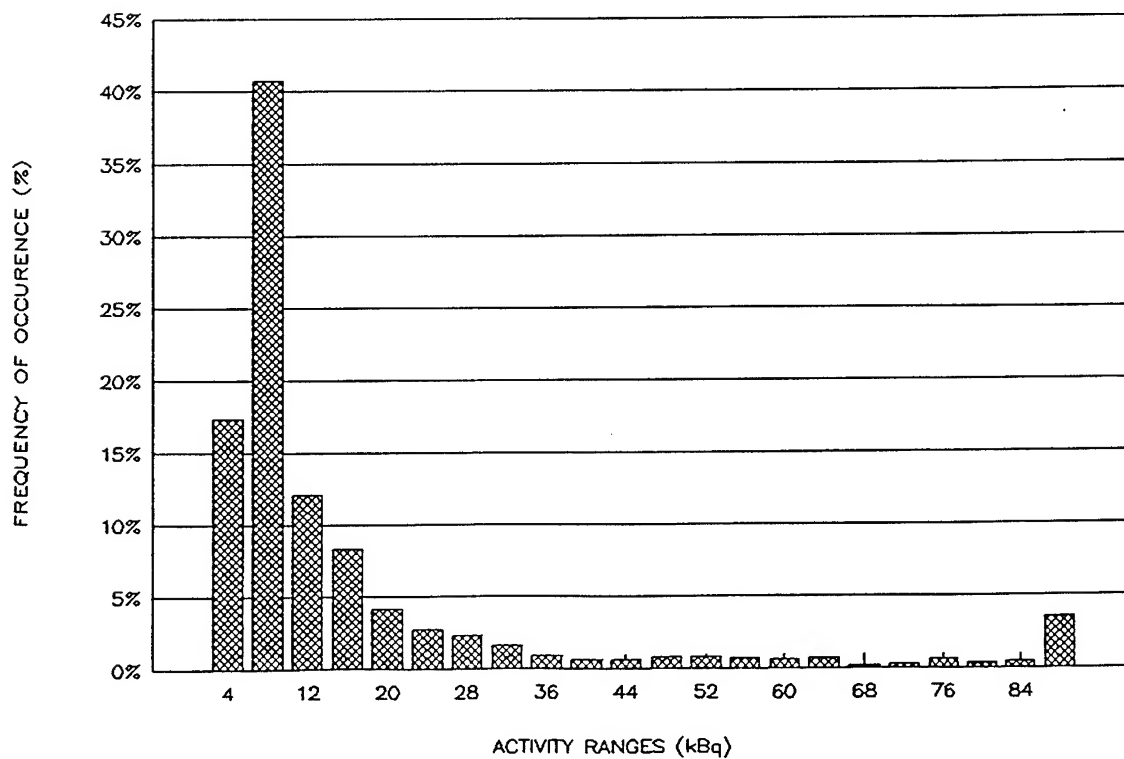
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 12-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 12-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 12-Apr-93

AVERAGE BACKGROUND COUNT RATE	0.80 ± 0.03 c/sec		
SORTER SOIL DENSITY	1.3 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	16.00 tons	64.1 tons	
MAXIMUM/SORT	63.6 kg	60.5 kg	
MINIMUM/SORT	0.8 kg	53 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			80.0%
EQUIVALENT SOIL-IN-GROUND	12.68 yd ³	50.8 yd ³	63.5 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	21,270 kBq		
MAXIMUM/SORT	603 kBq		
MINIMUM/SORT	2.2 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	18,718 kBq	6,571 kBq	
MINIMUM/SORT	452 kBq	21 kBq	
SPECIFIC ACTIVITY	0 Bq	-11 kBq	
	1,170 Bq/kg	102 Bq/kg	
WORK HISTORY			
WORK DAY START	05:59 AM	WORK DAY END	05:30 PM
PLANT START-UP	05:59 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	05:59 AM	END SOIL PROCESSING	03:21 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS	11.5 hr		
AVAILABLE HOURS	11.5 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	7.36 hr		
DOWN-TIME	4.16 hr		
TOTAL SYSTEM PAUSE	2.02 hr		
NONAVAILABLE HOURS	0.0 hr		
START-UP	0.00 hr		
SHUT-DOWN	2.14 hr		
PLANT PERFORMANCE	63.9%		
PRODUCTIVITY	63.9%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,665		
NONPROCESS RECORDS (Test, calibration, etc)	10		
20-SEC PROCESS RECORDS	1,324		
TOTAL SORT	247 MD>0 & MND=0		
NO SORT	530 AD=0 & MD=0 & MND>0		
SOME SORT	547 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	1	UNEXPLAIN	PAUSE
AD=0 & MD	2	TIME	TIME
AD<0 & MD	0	07:08:24	05:59
ACT_P <5 kBq	392 29.2%	08:32:14	06:00

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	13,240	14:10:15	07:41
2-SEC RECORDS WITH SORTS	1,341 (ACT_P >0 kBq)		08:26
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR			08:27
2 DETECTORS	288 81.6%		13:27
3 DETECTORS	56 15.9%		14:10
4 DETECTORS	8 2.3%		
5 DETECTORS	1 0.3%		
6 DETECTORS	0 0.0%		
7 DETECTORS	0 0.0%		
8 DETECTORS	0 0.0%		
TOTAL	353		
NET 2-SEC RECORDS WITH SORTS	988		
2-SEC PERIODS WITH NO SORTS	12,252		
AVG TIME BETWEEN 2-SEC SORTS	26.8 sec		

1-GATE SORTS	711	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P	
DETECTR	SORTS	FREQ%	(Bq)	(#) (Bq/kg)	(Bq)	(#)		(kBq)	
1	25	3.5%	-14000	4	-231	4000	177	13.2%	4
2	89	12.5%	-12000	1	-198	8000	570	42.5%	8
3	128	18.0%	-10000	2	-165	12000	207	15.4%	12
4	145	20.4%	-8000	3	-132	16000	113	8.4%	16
5	128	18.0%	-6000	12	-99	20000	63	4.7%	20
6	107	15.0%	-4000	23	-66	24000	41	3.1%	24
7	75	10.5%	-2000	41	-33	28000	34	2.5%	28
8	14	2.0%	0	338	0	32000	15	1.1%	32
TOTAL	711		2000	135	33	36000	13	1.0%	36
			4000	139	66	40000	13	1.0%	40
2-GATE SORTS	630		6000	150	99	44000	13	1.0%	44
DETECTR	SORTS	FREQ%	8000	132	132	48000	10	0.7%	48
8			10000	81	165	52000	9	0.7%	52
9	42	6.7%	12000	64	198	56000	5	0.4%	56
10	90	14.3%	14000	63	231	60000	11	0.8%	60
11	121	19.2%	16000	50	264	64000	3	0.2%	64
12	129	20.5%	18000	35	298	68000	4	0.3%	68
13	115	18.3%	20000	40	331	72000	2	0.1%	72
14	91	14.4%	22000	21	364	76000	3	0.2%	76
15	42	6.7%	24000	0	397	80000	1	0.1%	80
TOTAL	630		26000	0	430	84000	2	0.1%	84
			>28000	0	0	>84000	32	2.4%	>84
			TOTAL	1334		TOTAL	1341		

SUMMARY TOTALS

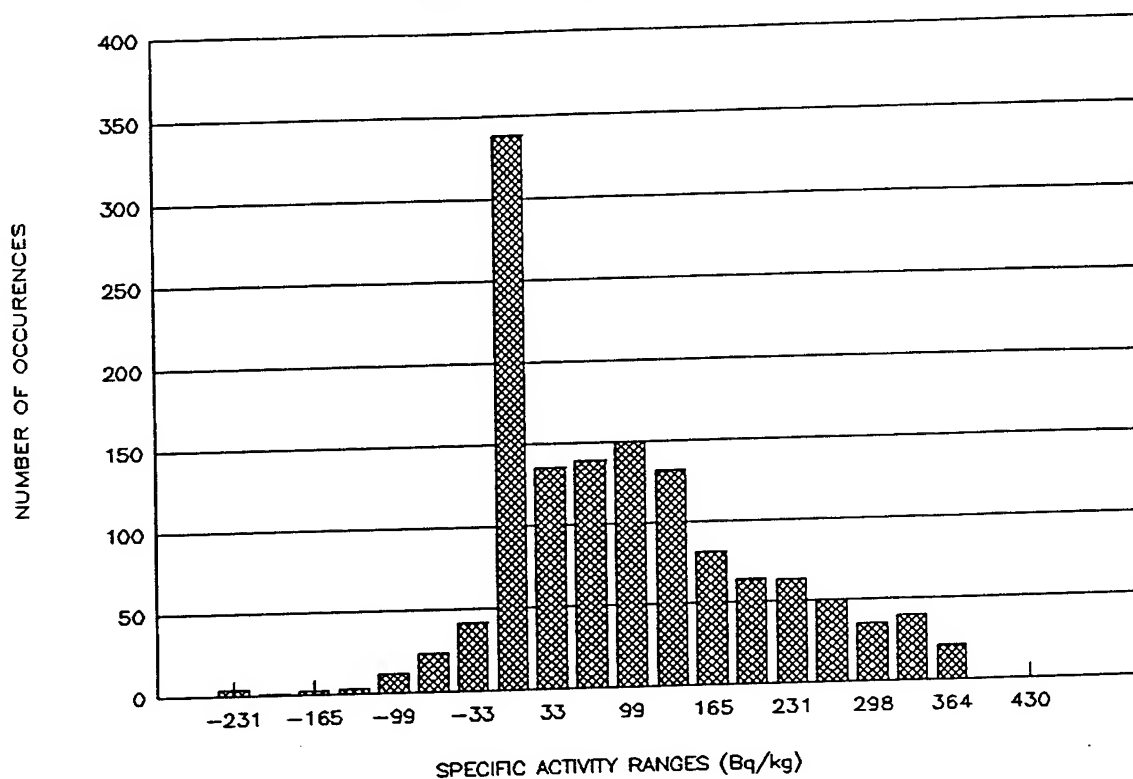
HOT PARTICLE EVENTS	1300	SORTS BY ONE GATE ONLY	711
MULTIPARTICLE EVENTS	1487	SORTS BY TWO GATES	630
DISTRIBUTED EVENTS	18354		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

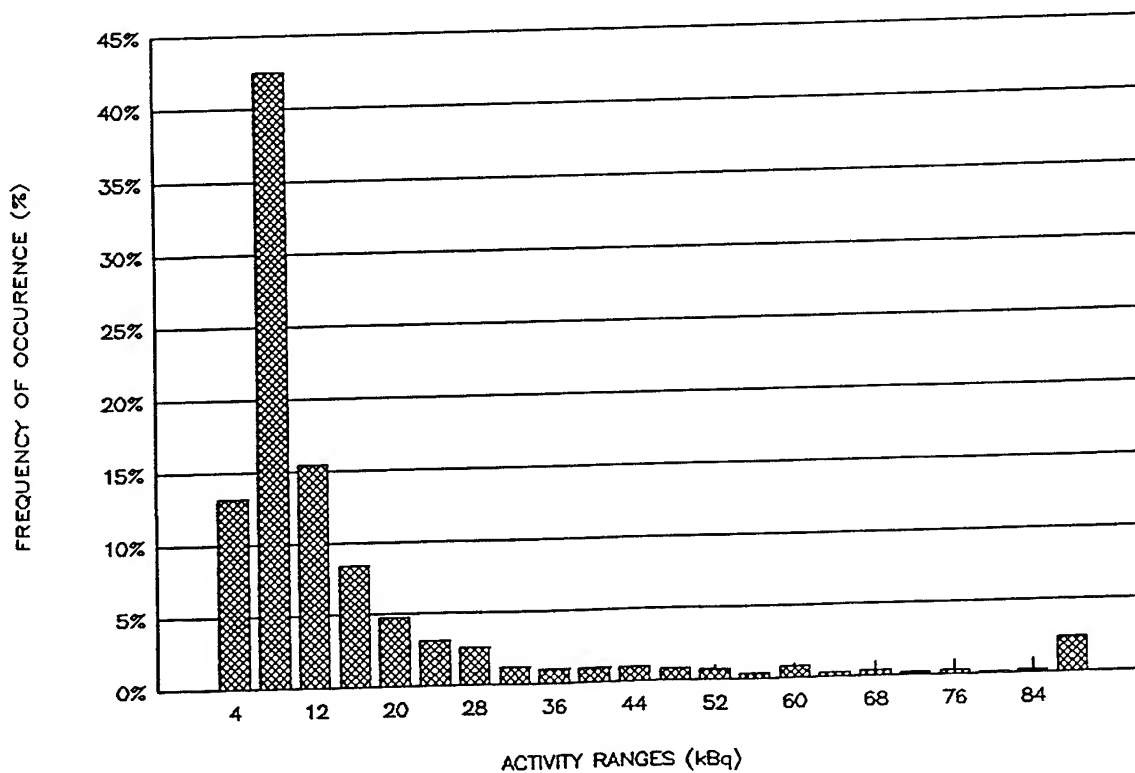
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 12-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 12-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 10-Apr-93

AVERAGE BACKGROUND COUNT RATE 0.76 ± 0.05 c/sec
 SORTER SOIL DENSITY 1.3 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN	
MASS TOTAL	1.20 tons	105.9 tons	
MAXIMUM/SORT	14.4 kg	60.5 kg	
MINIMUM/SORT	0.8 kg	46.2 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			98.9%
EQUIVALENT SOIL-IN-GROUND	0.95 yd ³	84.0 yd ³	84.9 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	41,187 kBq
MAXIMUM/SORT	8,862 kBq
MINIMUM/SORT	2.4 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

MAXIMUM/SORT	23,363 kBq	6,851 kBq
MINIMUM/SORT	16078 kBq	17 kBq
SPECIFIC ACTIVITY	0 Bq	-7 kBq
	19,460 Bq/kg	65 Bq/kg

WORK HISTORY

WORK DAY START	06:06 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:06 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:33 AM	END SOIL PROCESSING	04:53 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.4 hr
AVAILABLE HOURS	11.4 hr
ACTUAL PROCESS HOURS (total 20-sec records)	9.83 hr
DOWN-TIME	1.57 hr
TOTAL SYSTEM PAUSE	0.87 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.46 hr
SHUT-DOWN	0.62 hr
PLANT PERFORMANCE	86.3%
PRODUCTIVITY	86.3%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 2,861

NONPROCESS RECORDS (Test, calibration, etc) 22

20-SEC PROCESS RECORDS

TOTAL SORT	1,770	0 MD>0 & MND=0
NO SORT	1,066	AD=0 & MD=0 & MND>0
SOME SORT	704	AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0	

0<AD<1kBq & MD>0	1
AD=0 & MD	0
AD<0 & MD	0

ACT_P <5 kBq 330 30.2%

UNEXPLAIN	PAUSE
TIME	TIME
09:39:42	06:06
	07:40

JA SOIL CLEANUP PLANT LOG SUMMARY

08:02

2-SEC COUNT PERIODS 17,700
 2-SEC RECORDS WITH SORTS 1,091 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 235 84.8%
 3 DETECTORS 37 13.4%
 4 DETECTORS 5 1.8%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 277
 NET 2-SEC RECORDS WITH SORTS 814
 2-SEC PERIODS WITH NO SORTS 16,886
 AVG TIME BETWEEN 2-SEC SORTS 43.5 sec

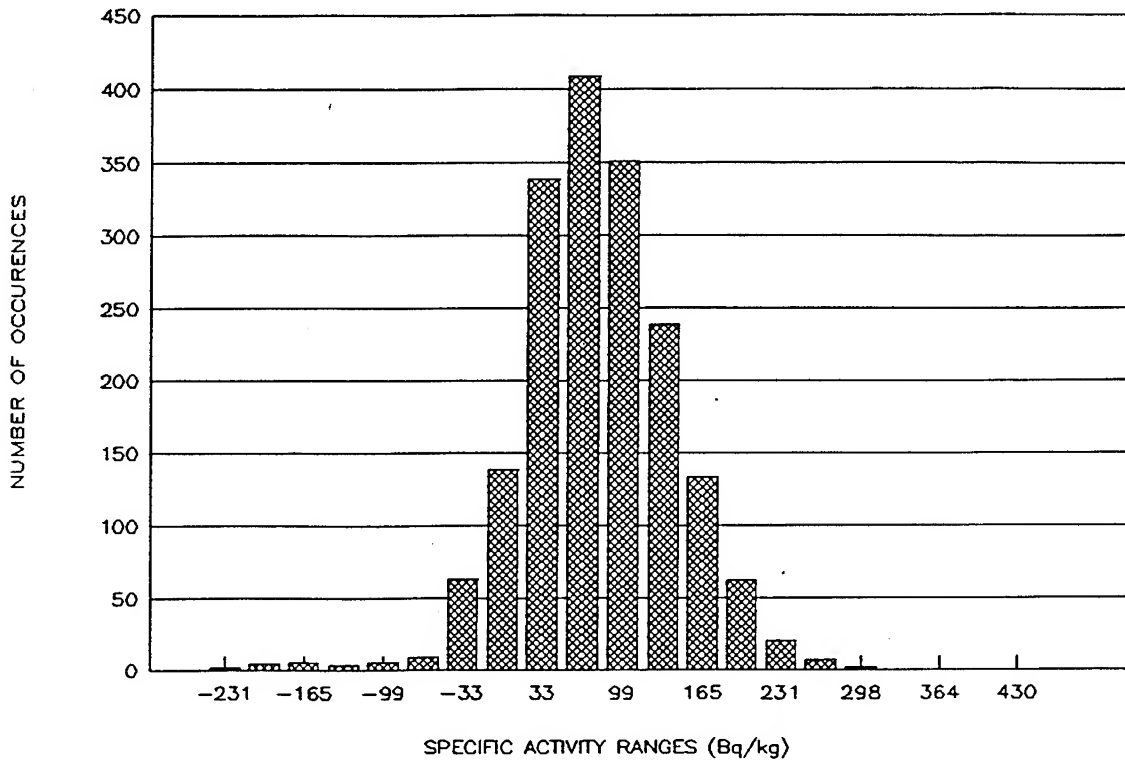
1-GATE SORTS DETECTR	SORTS	557 FREQ%	ACT_NO (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT (#)	FREQ%	ACT_P (kBq)
1	10	1.8%	-14000	2	-231	4000	140	12.8%	4
2	39	7.0%	-12000	4	-198	8000	470	43.1%	8
3	81	14.5%	-10000	5	-165	12000	159	14.6%	12
4	103	18.5%	-8000	3	-132	16000	86	7.9%	16
5	119	21.4%	-6000	5	-99	20000	41	3.8%	20
6	85	15.3%	-4000	9	-66	24000	49	4.5%	24
7	90	16.2%	-2000	63	-33	28000	35	3.2%	28
8	30	5.4%	0	139	0	32000	17	1.6%	32
TOTAL	557		2000	339	33	36000	7	0.6%	36
			4000	409	66	40000	10	0.9%	40
2-GATE SORTS		534	6000	351	99	44000	8	0.7%	44
DETECTR	SORTS	FREQ%	8000	239	132	48000	11	1.0%	48
8			10000	133	165	52000	5	0.5%	52
9	19	3.6%	12000	62	198	56000	4	0.4%	56
10	53	9.9%	14000	20	231	60000	5	0.5%	60
11	105	19.7%	16000	7	264	64000	5	0.5%	64
12	101	18.9%	18000	2	298	68000	2	0.2%	68
13	112	21.0%	20000	0	331	72000	2	0.2%	72
14	82	15.4%	22000	0	364	76000	3	0.3%	76
15	62	11.6%	24000	0	397	80000	1	0.1%	80
TOTAL	534		26000	0	430	84000	1	0.1%	84
			>28000	0	0	>84000	30	2.7%	>84
			TOTAL	1792		TOTAL	1091		
SUMMARY TOTALS									
HOT PARTICLE EVENTS			1076	SORTS BY ONE GATE ONLY			557		
MULTIPARTICLE EVENTS			496	SORTS BY TWO GATES			534		
DISTRIBUTED EVENTS			0						

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

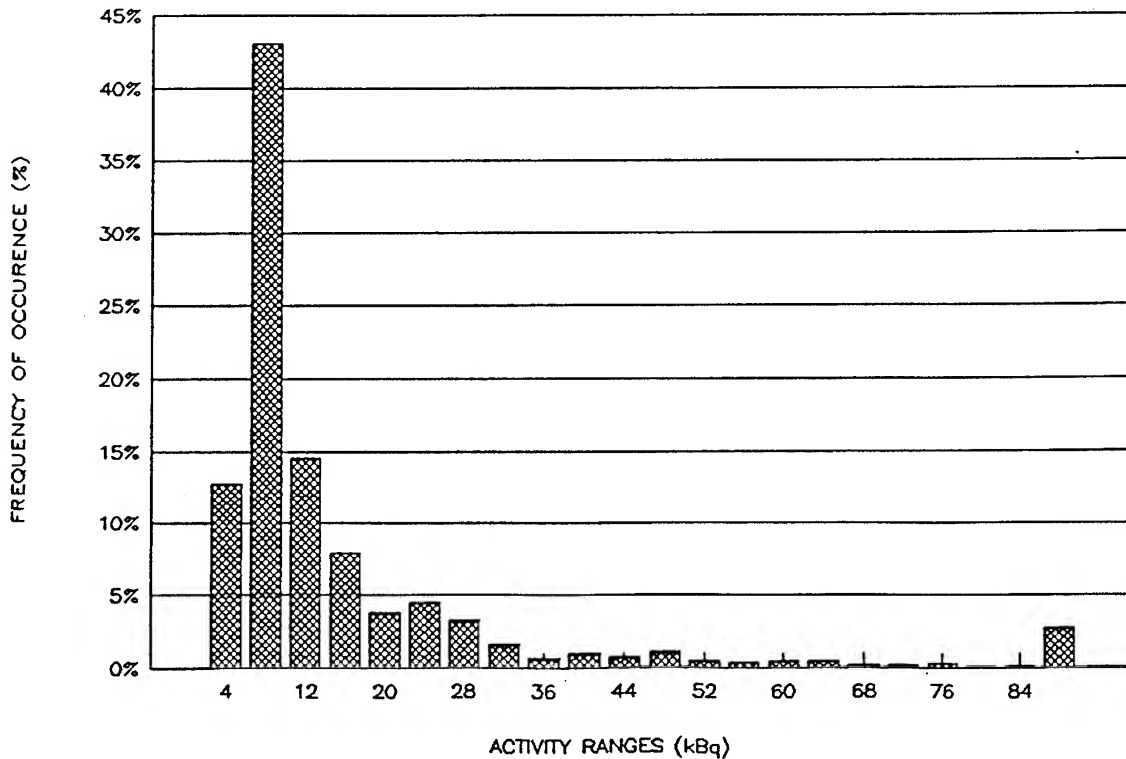
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 10-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 10-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 10-Apr-93

AVERAGE BACKGROUND COUNT RATE	0.79 ± 0.03 c/sec		
SORTER SOIL DENSITY	1.3 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	1.32 tons	105.3 tons	
MAXIMUM/SORT	63.6 kg	60.5 kg	
MINIMUM/SORT	0.8 kg	54.5 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			98.8%
EQUIVALENT SOIL-IN-GROUND	1.05 yd ³	83.4 yd ³	84.5 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	21,514 kBq		
MAXIMUM/SORT	1,650 kBq		
MINIMUM/SORT	2.7 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	9,783 kBq	6,926 kBq	
MAXIMUM/SORT	1341 kBq	18 kBq	
MINIMUM/SORT	0 Bq	-8 kBq	
SPECIFIC ACTIVITY	7,389 Bq/kg	66 Bq/kg	
WORK HISTORY			
WORK DAY START	06:06 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:06 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:33 AM	END SOIL PROCESSING	04:54 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS		11.4 hr	
AVAILABLE HOURS		11.4 hr	
ACTUAL PROCESS HOURS (total 20-sec records)		9.78 hr	
DOWN-TIME		1.62 hr	
TOTAL SYSTEM PAUSE		0.91 hr	
NONAVAILABLE HOURS		0.0 hr	
START-UP		0.45 hr	
SHUT-DOWN		0.59 hr	
PLANT PERFORMANCE		85.8%	
PRODUCTIVITY		85.8%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)		2,877	
NONPROCESS RECORDS (Test, calibration, etc)		26	
20-SEC PROCESS RECORDS		1,761	
TOTAL SORT		1 MD>0 & MND=0	
NO SORT		1,010 AD=0 & MD=0 & MND>0	
SOME SORT		750 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS		0	
0<AD<1kBq & MD>0	2		UNEXPLAIN PAUSE
AD=0 & MD	0		TIME TIME
AD<0 & MD	0		12:23:26 06:06
ACT_P <5 kBq	320	28.7%	13:10:26 07:40

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	17,610	08:02
2-SEC RECORDS WITH SORTS	1,116 (ACT_P >0 kBq)	11:58
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		
2 DETECTORS	225 79.2%	
3 DETECTORS	46 16.2%	
4 DETECTORS	10 3.5%	
5 DETECTORS	3 1.1%	
6 DETECTORS	0 0.0%	
7 DETECTORS	0 0.0%	
8 DETECTORS	0 0.0%	
TOTAL	284	
NET 2-SEC RECORDS WITH SORTS	832	
2-SEC PERIODS WITH NO SORTS	16,778	
AVG TIME BETWEEN 2-SEC SORTS	42.3 sec	

1-GATE SORTS	587	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	14	2.4%	-14000	10	-231	4000	151	13.5%
2	85	14.5%	-12000	5	-198	8000	455	40.8%
3	76	12.9%	-10000	3	-165	12000	172	15.4%
4	129	22.0%	-8000	2	-132	16000	89	8.0%
5	130	22.1%	-6000	9	-99	20000	56	5.0%
6	94	16.0%	-4000	26	-66	24000	30	2.7%
7	51	8.7%	-2000	76	-33	28000	27	2.4%
8	8	1.4%	0	178	0	32000	15	1.3%
TOTAL	587		2000	280	33	36000	11	1.0%
			4000	369	66	40000	14	1.3%
2-GATE SORTS	529		6000	318	99	44000	11	1.0%
DETECTR	SORTS	FREQ%	8000	228	132	48000	8	0.7%
8			10000	149	165	52000	7	0.6%
9	44	8.3%	12000	82	198	56000	5	0.4%
10	63	11.9%	14000	35	231	60000	7	0.6%
11	89	16.8%	16000	12	264	64000	7	0.6%
12	131	24.8%	18000	4	298	68000	5	0.4%
13	100	18.9%	20000	1	331	72000	6	0.5%
14	78	14.7%	22000	0	364	76000	3	0.3%
15	24	4.5%	24000	0	397	80000	0	0.0%
TOTAL	529		26000	0	430	84000	2	0.2%
			>28000	0	0	>84000	35	3.1%
			TOTAL	1787		TOTAL	1116	

SUMMARY TOTALS

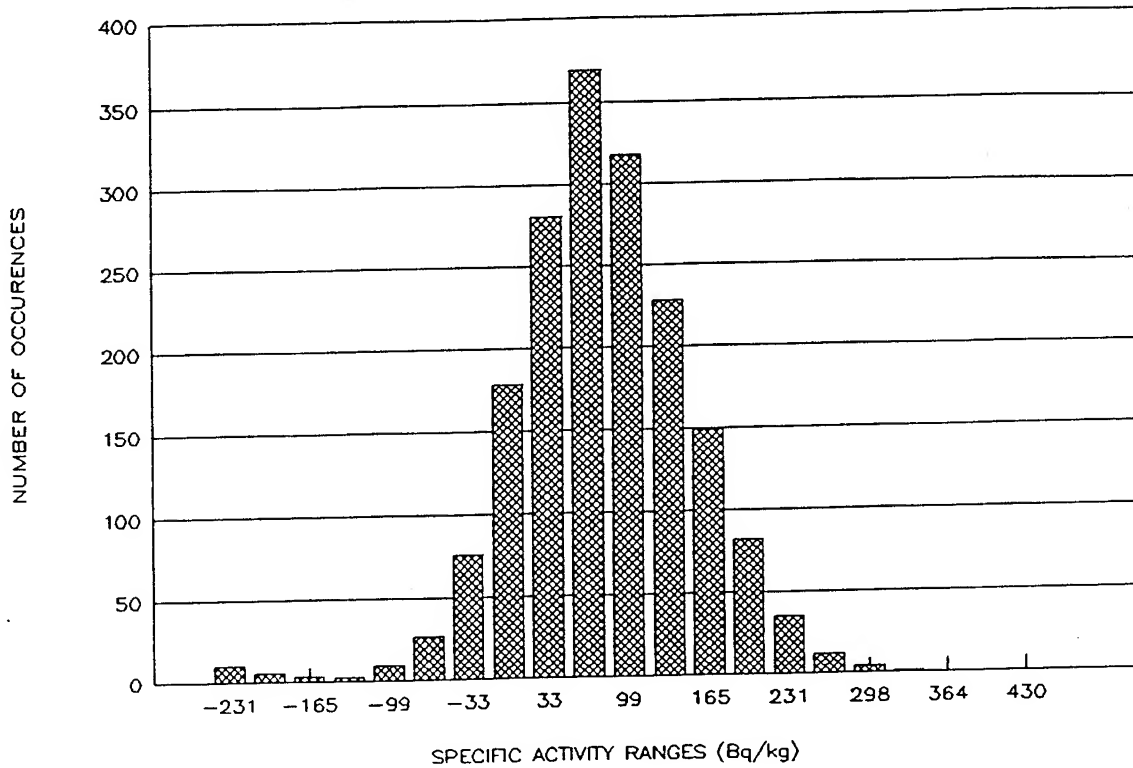
HOT PARTICLE EVENTS	1103	SORTS BY ONE GATE ONLY	587
MULTIPARTICLE EVENTS	549	SORTS BY TWO GATES	529
DISTRIBUTED EVENTS	83		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

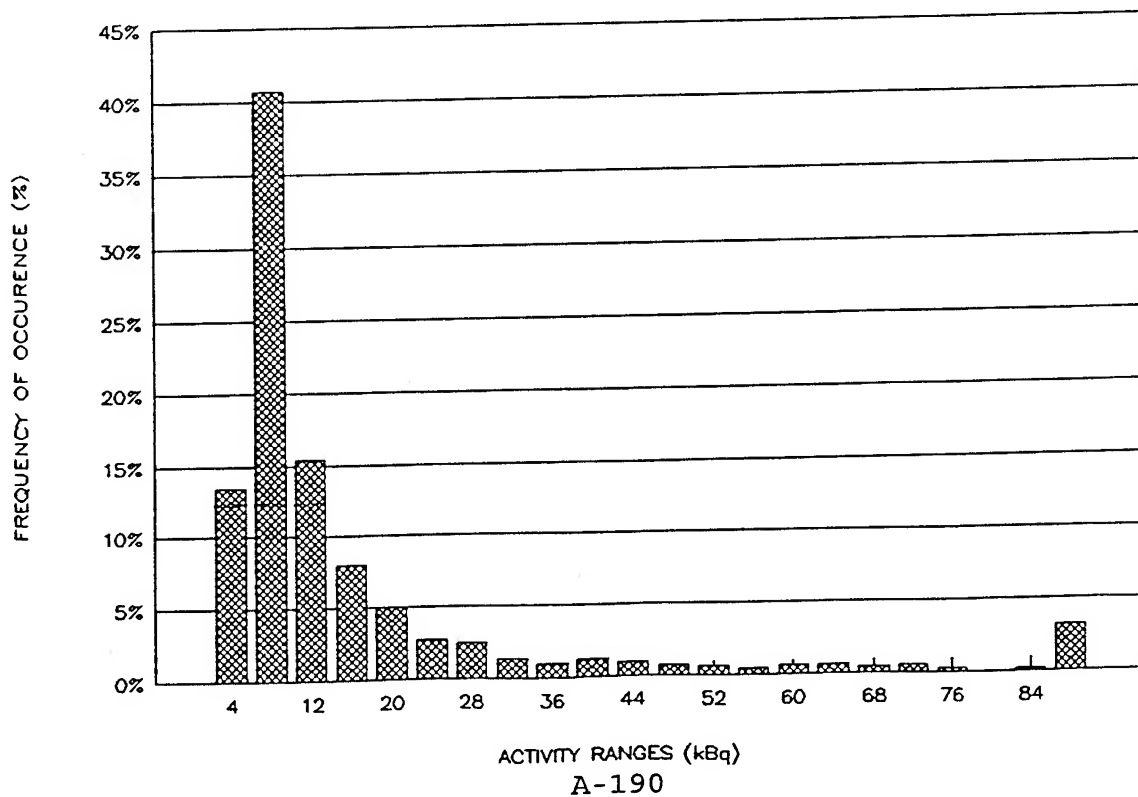
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 10-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 10-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 08-Apr-93

AVERAGE BACKGROUND COUNT RATE 0.76 ± 0.06 c/sec
 SORTER SOIL DENSITY 1.2 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	1.37 tons	85.4 tons
MAXIMUM/SORT	58.7 kg	55.9 kg
MINIMUM/SORT	0.7 kg	49.6 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		98.4%
EQUIVALENT SOIL-IN-GROUND	1.08 yd ³	67.7 yd ³ 68.8 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	15,817 kBq
MAXIMUM/SORT	869 kBq
MINIMUM/SORT	2.2 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	6,887 kBq	7,501 kBq
MAXIMUM/SORT	609 kBq	19 kBq
MINIMUM/SORT	-10376 Bq	-14 kBq
SPECIFIC ACTIVITY	5,039 Bq/kg	88 Bq/kg

WORK HISTORY

WORK DAY START	06:00 AM
PLANT START-UP	06:00 AM
START SOIL PROCESSING	06:27 AM
LUNCH START	11:30 AM

WORK DAY END	05:30 PM
PLANT SHUT-DOWN	05:30 PM
END SOIL PROCESSING	05:01 PM
LUNCH PERIOD	0.0 hr

WORK HOURS	11.5 hr
AVAILABLE HOURS	11.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	8.62 hr
DOWN-TIME	2.88 hr
TOTAL SYSTEM PAUSE	2.41 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.46 hr
SHUT-DOWN	0.47 hr
PLANT PERFORMANCE	75.0%
PRODUCTIVITY	75.0%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 2,650

NONPROCESS RECORDS (Test, calibration, etc) 3

20-SEC PROCESS RECORDS

TOTAL SORT	1,552
NO SORT	4 MD>0 & MND=0
SOME SORT	823 AD=0 & MD=0 & MND>0
UNEXPLAINED RECORDS	725 AD>0&0<MD<MNDmax&MND<MNDmax
	0

	UNEXPLAIN	PAUSE
	TIME	TIME
0<AD<1kBq & MD>0	15:45:22	06:00
AD=0 & MD		13:36
AD<0 & MD		
ACT_P <5 kBq	363	33.1%

JA SOIL CLEANUP PLANT LOG SUMMARY

13:52

2-SEC COUNT PERIODS 15,520

2-SEC RECORDS WITH SORTS 1,098 (ACT_P >0 kBq)

2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	256	85.3%
3 DETECTORS	37	12.3%
4 DETECTORS	6	2.0%
5 DETECTORS	1	0.3%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	300	

NET 2-SEC RECORDS WITH SORTS 798

2-SEC PERIODS WITH NO SORTS 14,722

AVG TIME BETWEEN 2-SEC SORTS 38.9 sec

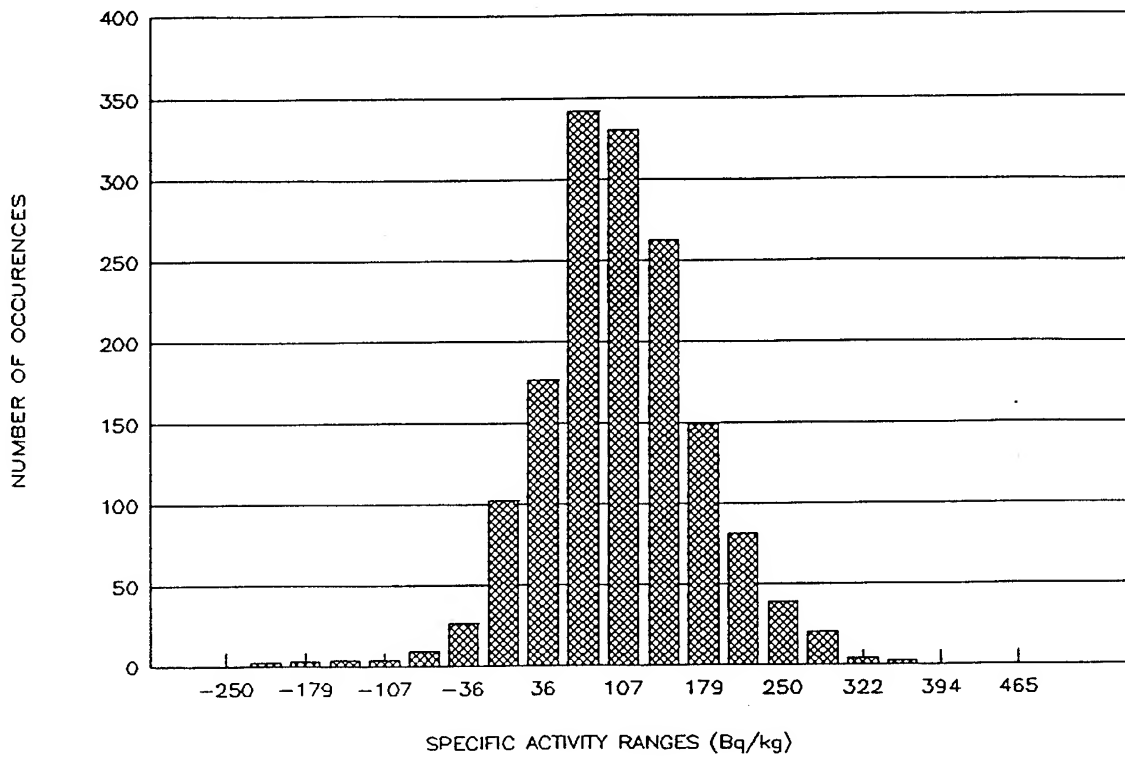
1-GATE SORTS	565	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P	
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)	
1	8	1.4%	-14000	0	-250	4000	183	16.7%	4
2	50	8.8%	-12000	2	-215	8000	447	40.7%	8
3	88	15.6%	-10000	3	-179	12000	185	16.8%	12
4	100	17.7%	-8000	4	-143	16000	81	7.4%	16
5	109	19.3%	-6000	4	-107	20000	54	4.9%	20
6	105	18.6%	-4000	9	-72	24000	27	2.5%	24
7	86	15.2%	-2000	26	-36	28000	19	1.7%	28
8	19	3.4%	0	102	0	32000	13	1.2%	32
TOTAL	565		2000	176	36	36000	13	1.2%	36
			4000	342	72	40000	13	1.2%	40
2-GATE SORTS	533		6000	330	107	44000	5	0.5%	44
DETECTR	SORTS	FREQ%	8000	262	143	48000	11	1.0%	48
8			10000	149	179	52000	6	0.5%	52
9	18	3.4%	12000	81	215	56000	4	0.4%	56
10	61	11.4%	14000	39	250	60000	3	0.3%	60
11	87	16.3%	16000	20	286	64000	5	0.5%	64
12	98	18.4%	18000	4	322	68000	5	0.5%	68
13	113	21.2%	20000	2	358	72000	2	0.2%	72
14	91	17.1%	22000	0	394	76000	4	0.4%	76
15	65	12.2%	24000	0	429	80000	0	0.0%	80
TOTAL	533		26000	0	465	84000	0	0.0%	84
			>28000	0	0	>84000	18	1.6%	>84
			TOTAL	1555		TOTAL	1098		
SUMMARY TOTALS									
HOT PARTICLE EVENTS		1096				SORTS BY ONE GATE ONLY	565		
MULTIPARTICLE EVENTS		532				SORTS BY TWO GATES	533		
DISTRIBUTED EVENTS		323							

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

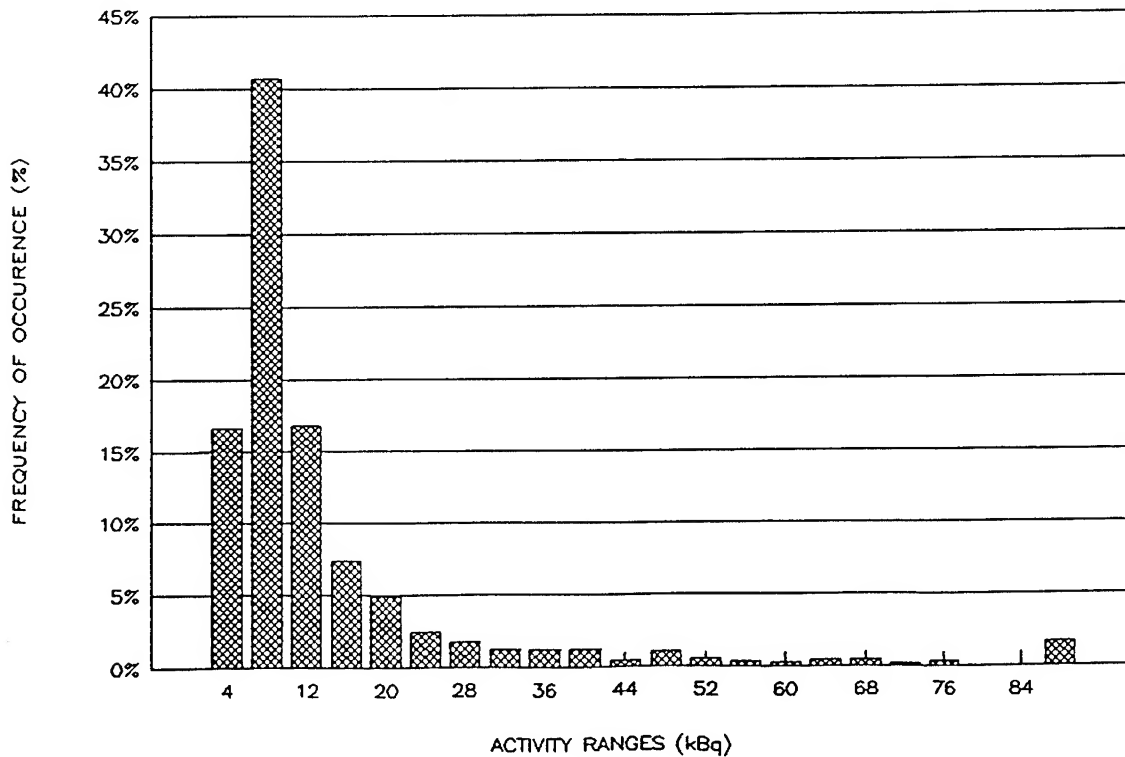
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 08-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 08-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 08-Apr-93

AVERAGE BACKGROUND COUNT RATE	0.79 ± 0.04 c/sec		
SORTER SOIL DENSITY	1.2 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		2.04 tons	84.6 tons
MAXIMUM/SORT		58.7 kg	55.9 kg
MINIMUM/SORT		0.7 kg	49.6 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			97.6%
EQUIVALENT SOIL-IN-GROUND	1.61 yd ³	67.0 yd ³	68.6 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	16,718 kBq		
MAXIMUM/SORT	702 kBq		
MINIMUM/SORT	2.6 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	8,473 kBq	5,974 kBq	
MAXIMUM/SORT	366 kBq	19 kBq	
MINIMUM/SORT	-14666 Bq	-17 kBq	
SPECIFIC ACTIVITY	4,163 Bq/kg	71 Bq/kg	
WORK HISTORY			
WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:27 AM	END SOIL PROCESSING	05:01 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS		11.5 hr	
AVAILABLE HOURS		11.5 hr	
ACTUAL PROCESS HOURS (total 20-sec records)		8.61 hr	
DOWN-TIME		2.89 hr	
TOTAL SYSTEM PAUSE		2.44 hr	
NONAVAILABLE HOURS		0.0 hr	
START-UP		0.46 hr	
SHUT-DOWN		0.47 hr	
PLANT PERFORMANCE		74.8%	
PRODUCTIVITY		74.8%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)		2,661	
NONPROCESS RECORDS (Test, calibration, etc)		3	
20-SEC PROCESS RECORDS		1,549	
TOTAL SORT		10 MD>0 & MND=0	
NO SORT		585 AD=0 & MD=0 & MND>0	
SOME SORT		954 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS		0	
0<AD<1kBq & MD>0	0		UNEXPLAIN PAUSE
AD=0 & MD	1		TIME TIME
AD<0 & MD	1		13:40:20 06:00
ACT_P <5 kBq	330 29.7%		15:45:22 11:46

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	15,490	13:36
2-SEC RECORDS WITH SORTS	1,112 (ACT_P >0 kBq)	13:52
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		
2 DETECTORS	229 84.2%	
3 DETECTORS	36 13.2%	
4 DETECTORS	6 2.2%	
5 DETECTORS	1 0.4%	
6 DETECTORS	0 0.0%	
7 DETECTORS	0 0.0%	
8 DETECTORS	0 0.0%	
TOTAL	272	
NET 2-SEC RECORDS WITH SORTS	840	
2-SEC PERIODS WITH NO SORTS	14,650	
AVG TIME BETWEEN 2-SEC SORTS	36.9 sec	

1-GATE SORTS	590	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)
1	16	2.7%	-14000	5	-250	4000	157 14.1%
2	86	14.6%	-12000	3	-215	8000	469 42.2%
3	100	16.9%	-10000	3	-179	12000	174 15.6%
4	119	20.2%	-8000	4	-143	16000	78 7.0%
5	119	20.2%	-6000	8	-107	20000	54 4.9%
6	95	16.1%	-4000	20	-72	24000	39 3.5%
7	48	8.1%	-2000	63	-36	28000	24 2.2%
8	7	1.2%	0	149	0	32000	17 1.5%
TOTAL	590		2000	228	36	36000	15 1.3%
			4000	334	72	40000	8 0.7%
2-GATE SORTS	522		6000	309	107	44000	9 0.8%
DETECTR	SORTS	FREQ%	8000	204	143	48000	12 1.1%
8			10000	117	179	52000	4 0.4%
9	33	6.3%	12000	44	215	56000	8 0.7%
10	82	15.7%	14000	28	250	60000	5 0.4%
11	108	20.7%	16000	18	286	64000	3 0.3%
12	114	21.8%	18000	14	322	68000	7 0.6%
13	96	18.4%	20000	1	358	72000	1 0.1%
14	63	12.1%	22000	0	394	76000	3 0.3%
15	26	5.0%	24000	0	429	80000	1 0.1%
TOTAL	522		26000	0	465	84000	4 0.4%
			>28000	0	0	>84000	20 1.8%
			TOTAL	1552		TOTAL	1112

SUMMARY TOTALS

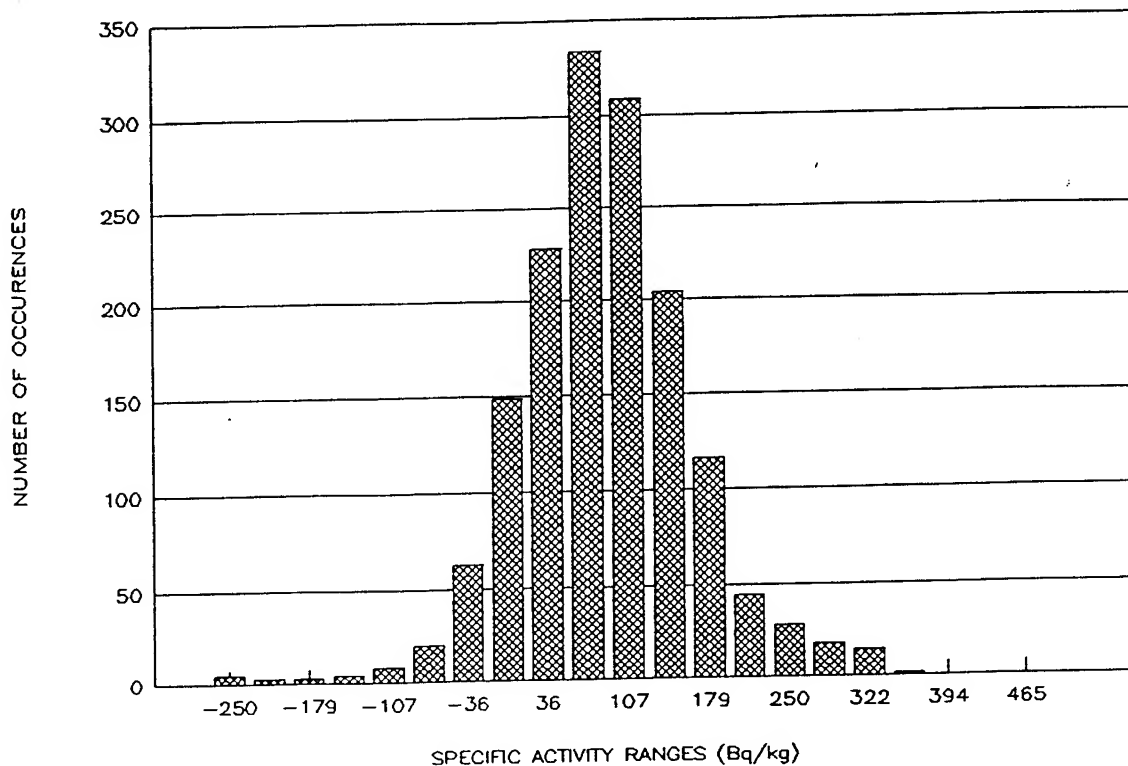
HOT PARTICLE EVENTS	1126	SORTS BY ONE GATE ONLY	590
MULTIPARTICLE EVENTS	990	SORTS BY TWO GATES	522
DISTRIBUTED EVENTS	790		

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

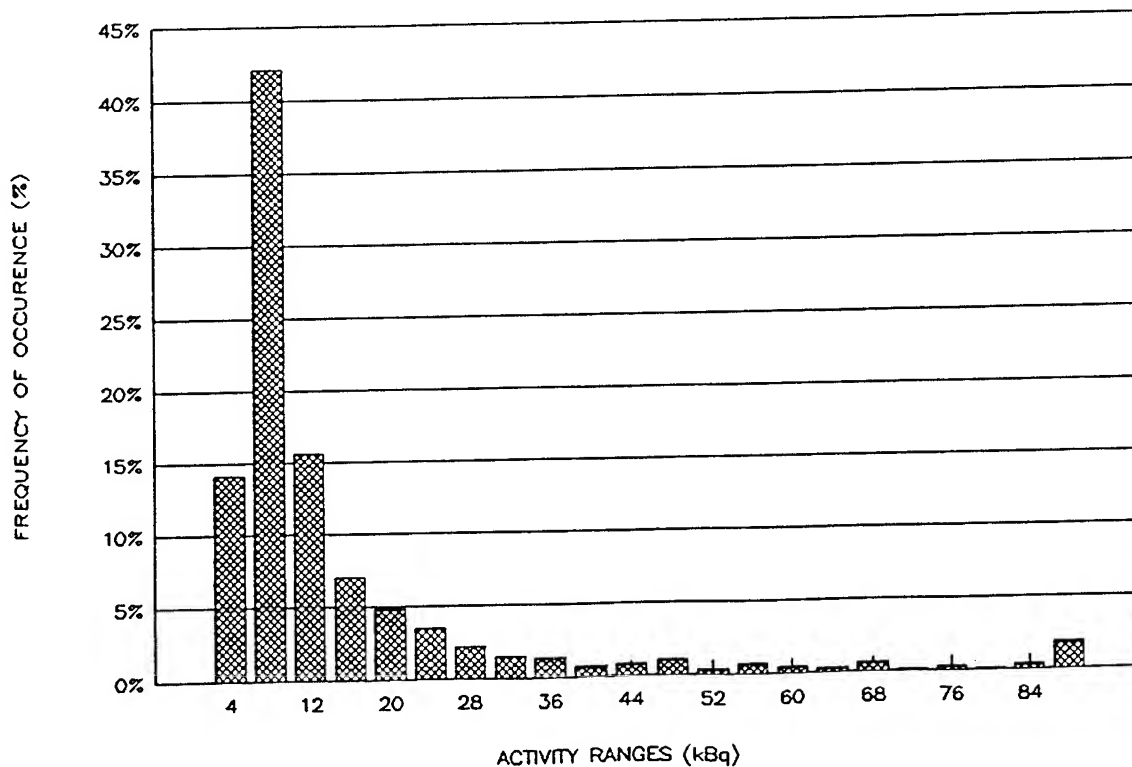
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 08-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 08-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 07-Apr-93

AVERAGE BACKGROUND COUNT RATE 0.77 ± 0.05 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	1.56 tons	100.3 tons
MAXIMUM/SORT	56.2 kg	53.6 kg
MINIMUM/SORT	0.7 kg	45.5 kg

		98.5%
WEIGHT RECOVERY OR VOLUME RECOVERY		
EQUIVALENT SOIL-IN-GROUND	1.23 yd ³	79.5 yd ³ 80.7 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	18,848 kBq
MAXIMUM/SORT	469 kBq
MINIMUM/SORT	2.2 kBq

	8,458 kBq	8,106 kBq
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY		
MAXIMUM/SORT	280 kBq	19 kBq
MINIMUM/SORT	0 Bq	-10 kBq
SPECIFIC ACTIVITY	5,431 Bq/kg	81 Bq/kg

WORK HISTORY

WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:27 AM	END SOIL PROCESSING	05:01 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.5 hr
AVAILABLE HOURS	11.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.56 hr
DOWN-TIME	0.94 hr
TOTAL SYSTEM PAUSE	0.47 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.46 hr
SHUT-DOWN	0.47 hr
PLANT PERFORMANCE	91.8%
PRODUCTIVITY	91.8%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	3,284		
NONPROCESS RECORDS (Test, calibration, etc)	2		
20-SEC PROCESS RECORDS	1,901		
TOTAL SORT	1 MD>0 & MND=0		
NO SORT	915 AD=0 & MD=0 & MND>0		
SOME SORT	985 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	4	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	07:31:57	06:00
ACT_P <5 kBq	468 33.8%	08:56:37	12:26

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 19,010 13:04:57 13:20
 2-SEC RECORDS WITH SORTS 1,383 (ACT_P >0 kBq) 16:09:41
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 310 83.1%
 3 DETECTORS 58 15.5%
 4 DETECTORS 5 1.3%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 373
 NET 2-SEC RECORDS WITH SORTS 1,010
 2-SEC PERIODS WITH NO SORTS 18,000
 AVG TIME BETWEEN 2-SEC SORTS 37.6 sec

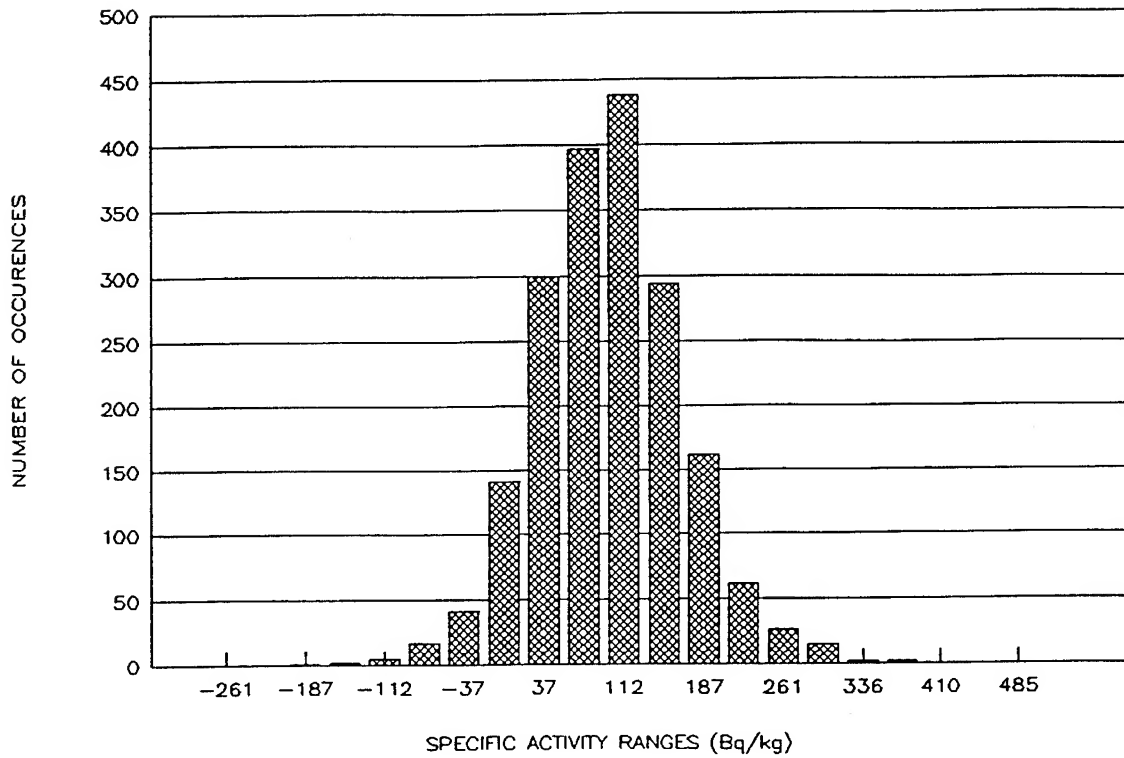
1-GATE SORTS	698	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P	
DETECTR	SORTS	FREQ%	(#)	(Bq/kg)	(Bq)	(#)		(kBq)	
1	12	1.7%	-14000	0	-261	4000	226	16.3%	4
2	54	7.7%	-12000	0	-224	8000	620	44.8%	8
3	102	14.6%	-10000	1	-187	12000	199	14.4%	12
4	129	18.5%	-8000	2	-149	16000	80	5.8%	16
5	156	22.3%	-6000	5	-112	20000	53	3.8%	20
6	135	19.3%	-4000	16	-75	24000	46	3.3%	24
7	93	13.3%	-2000	41	-37	28000	31	2.2%	28
8	17	2.4%	0	141	0	32000	14	1.0%	32
TOTAL	698		2000	300	37	36000	23	1.7%	36
			4000	397	75	40000	11	0.8%	40
			6000	438	112	44000	7	0.5%	44
2-GATE SORTS	685		8000	294	149	48000	6	0.4%	48
DETECTR	SORTS	FREQ%				52000	3	0.2%	52
8			10000	162	187	56000	12	0.9%	56
9	29	4.2%	12000	61	224	60000	5	0.4%	60
10	85	12.4%	14000	26	261	64000	6	0.4%	64
11	118	17.2%	16000	15	299	68000	0	0.0%	68
12	144	21.0%	18000	2	336	72000	3	0.2%	72
13	155	22.6%	20000	2	373	76000	3	0.2%	76
14	108	15.8%	22000	0	410	80000	3	0.2%	80
15	46	6.7%	24000	0	448	84000	2	0.1%	84
TOTAL	685		26000	0	485	84000	2	0.1%	84
			>28000	0	0	>84000	30	2.2%	>84
			TOTAL	1903		TOTAL	1383		
SUMMARY TOTALS									
HOT PARTICLE EVENTS		1396			SORTS BY ONE GATE ONLY	698			
MULTIPARTICLE EVENTS		849			SORTS BY TWO GATES	685			
DISTRIBUTED EVENTS		83							

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

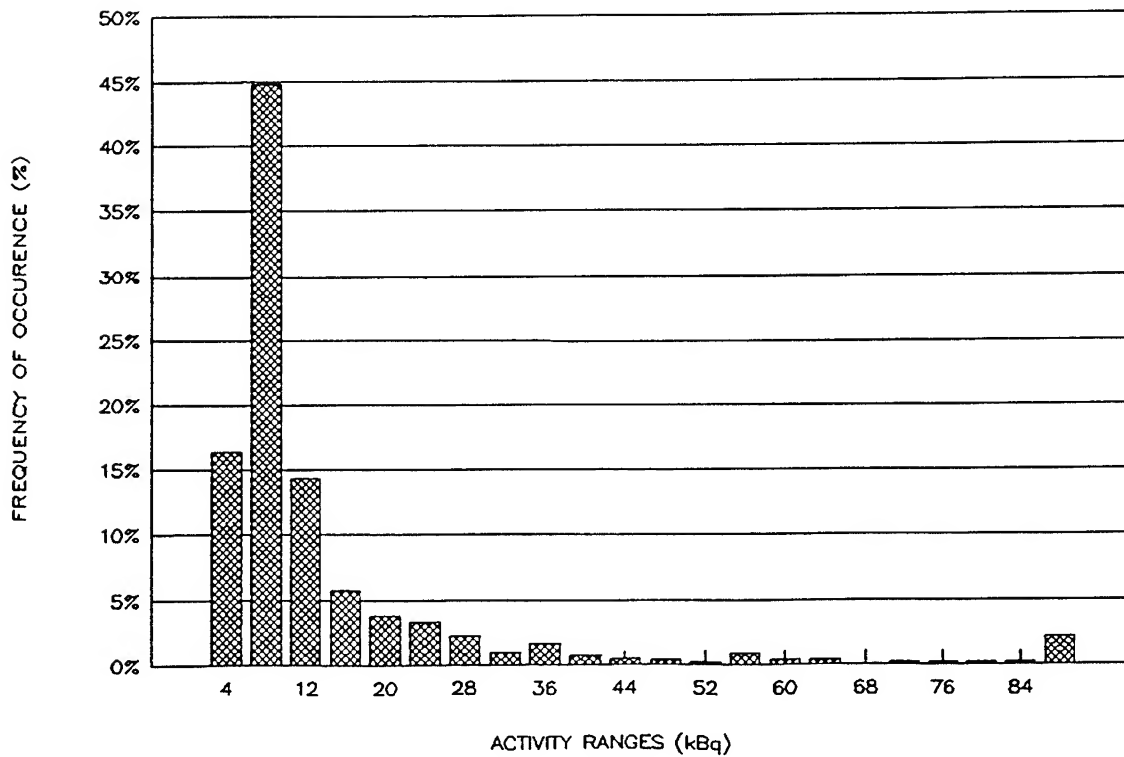
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 07-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 07-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 07-Apr-93

AVERAGE BACKGROUND COUNT RATE	0.81 ± 0.05 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		2.45 tons	97.0 tons
MAXIMUM/SORT		56.2 kg	53.6 kg
MINIMUM/SORT		0.7 kg	45.5 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			97.5%
EQUIVALENT SOIL-IN-GROUND	1.94 yd ³	76.9 yd ³	78.8 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	24,158 kBq		
MAXIMUM/SORT	1,110 kBq		
MINIMUM/SORT	2.6 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	12,408 kBq	6,221 kBq	
MAXIMUM/SORT	841 kBq	18 kBq	
MINIMUM/SORT	-270 Bq	-17 kBq	
SPECIFIC ACTIVITY	5,067 Bq/kg	64 Bq/kg	
WORK HISTORY			
WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:27 AM	END SOIL PROCESSING	05:01 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS		11.5 hr	
AVAILABLE HOURS		11.5 hr	
ACTUAL PROCESS HOURS (total 20-sec records)		10.31 hr	
DOWN-TIME		1.19 hr	
TOTAL SYSTEM PAUSE		0.70 hr	
NONAVAILABLE HOURS		0.0 hr	
START-UP		0.46 hr	
SHUT-DOWN		0.48 hr	
PLANT PERFORMANCE		89.7%	
PRODUCTIVITY		89.7%	

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	3,197		
NONPROCESS RECORDS (Test, calibration, etc)	7		
20-SEC PROCESS RECORDS	1,856		
TOTAL SORT	8 MD>0 & MND=0		
NO SORT	600 AD=0 & MD=0 & MND>0		
SOME SORT	1,248 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	2	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	1	07:16:38	06:00
ACT_P <5 kBq	380 28.3%	07:36:18	13:03

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	18,560	13:12:07	13:12
2-SEC RECORDS WITH SORTS	1,341 (ACT_P >0 .kBq)	13:18:58	13:20
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR			
2 DETECTORS	290	82.2%	
3 DETECTORS	56	15.9%	
4 DETECTORS	7	2.0%	
5 DETECTORS	0	0.0%	
6 DETECTORS	0	0.0%	
7 DETECTORS	0	0.0%	
8 DETECTORS	0	0.0%	
TOTAL	353		
NET 2-SEC RECORDS WITH SORTS	988		
2-SEC PERIODS WITH NO SORTS	17,572		
AVG TIME BETWEEN 2-SEC SORTS	37.6 sec		

1-GATE SORTS	676	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	21	3.1%	-14000	4	-261	4000	169	12.6%
2	87	12.9%	-12000	1	-224	8000	540	40.3%
3	128	18.9%	-10000	0	-187	12000	218	16.3%
4	138	20.4%	-8000	4	-149	16000	109	8.1%
5	136	20.1%	-6000	14	-112	20000	67	5.0%
6	107	15.8%	-4000	38	-75	24000	42	3.1%
7	54	8.0%	-2000	86	-37	28000	34	2.5%
8	5	0.7%	0	214	0	32000	27	2.0%
TOTAL	676		2000	337	37	36000	18	1.3%
			4000	393	75	40000	15	1.1%
2-GATE SORTS	665		6000	323	112	44000	14	1.0%
DETECTR	SORTS	FREQ%	8000	231	149	48000	7	0.5%
8			10000	110	187	52000	8	0.6%
9	43	6.5%	12000	55	224	56000	5	0.4%
10	83	12.5%	14000	28	261	60000	10	0.7%
11	161	24.2%	16000	13	299	64000	4	0.3%
12	146	22.0%	18000	9	336	68000	2	0.1%
13	118	17.7%	20000	3	373	72000	7	0.5%
14	92	13.8%	22000	0	410	76000	6	0.4%
15	22	3.3%	24000	0	448	80000	2	0.1%
TOTAL	665		26000	0	485	84000	2	0.1%
			>28000	0	0	>84000	35	2.6%
			TOTAL	1863		TOTAL	1341	

SUMMARY TOTALS

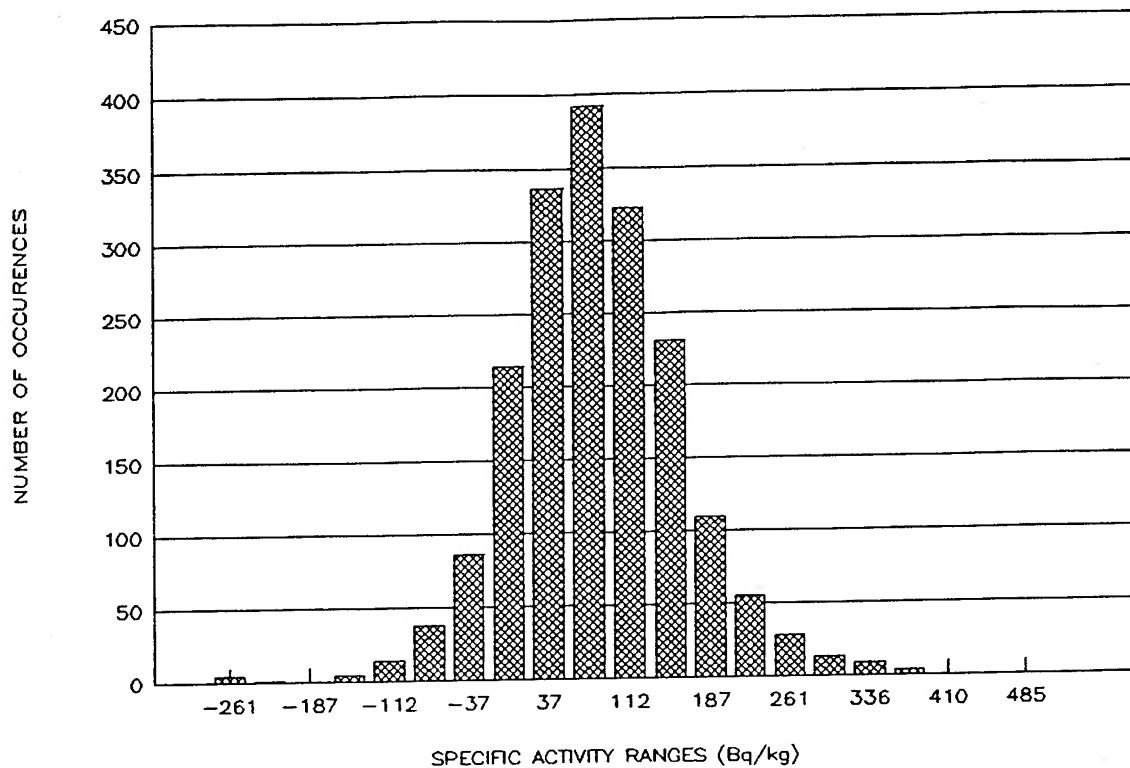
HOT PARTICLE EVENTS	1346	SORTS BY ONE GATE ONLY	676
MULTIPARTICLE EVENTS	1677	SORTS BY TWO GATES	665
DISTRIBUTED EVENTS	635		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
2.00 Empty belt
3.00 Test (No process soil)

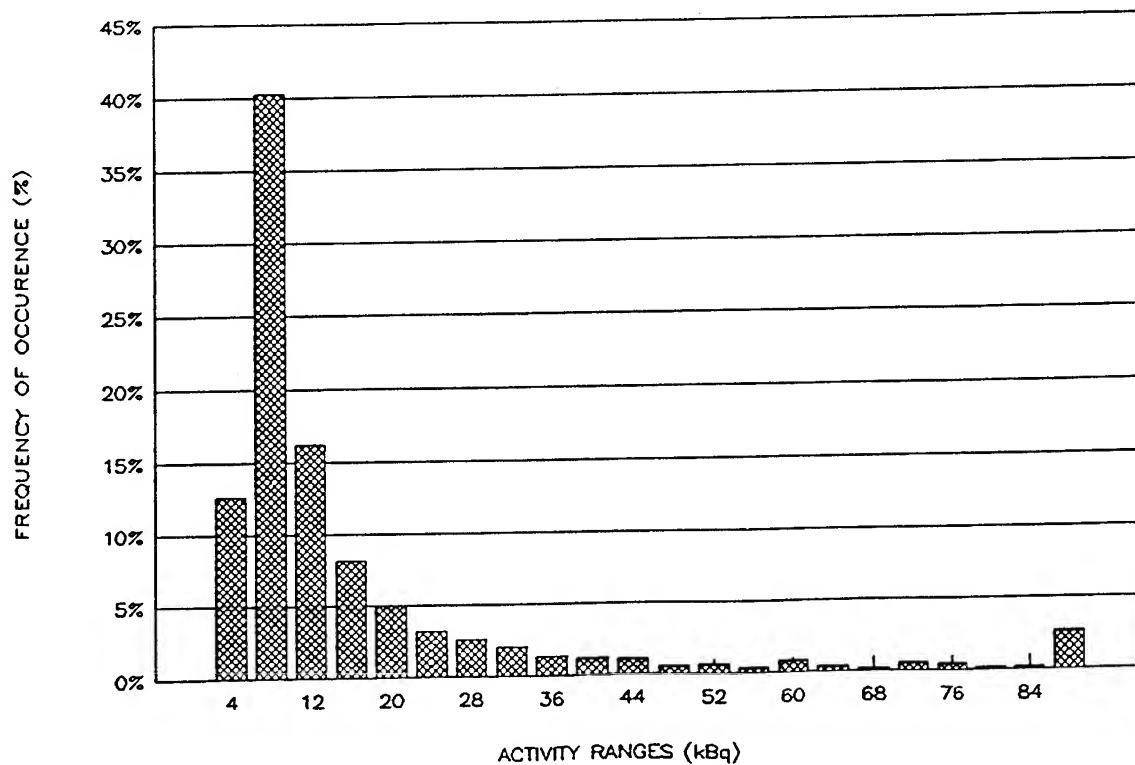
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 07-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 07-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 06-Apr-93

AVERAGE BACKGROUND COUNT RATE 0.77 ± 0.05 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	2.80 tons	99.9 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	45.5 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		97.3%
EQUIVALENT SOIL-IN-GROUND	2.22 yd ³	79.2 yd ³ 81.4 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	19,249 kBq
MAXIMUM/SORT	245 kBq
MINIMUM/SORT	2.3 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY		
MAXIMUM/SORT	162 kBq	19 kBq
MINIMUM/SORT	0 Bq	-8 kBq
SPECIFIC ACTIVITY	3,540 Bq/kg	98 Bq/kg

WORK HISTORY

WORK DAY START	05:50 AM	WORK DAY END	05:30 PM
PLANT START-UP	05:50 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:22 AM	END SOIL PROCESSING	05:02 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.7 hr
AVAILABLE HOURS	11.7 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.65 hr
DOWN-TIME	1.02 hr
TOTAL SYSTEM PAUSE	0.53 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.55 hr
SHUT-DOWN	0.46 hr
PLANT PERFORMANCE	91.3%
PRODUCTIVITY	91.3%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 3,318

NONPROCESS RECORDS (Test, calibration, etc) 6

20-SEC PROCESS RECORDS	1,917
TOTAL SORT	23 MD>0 & MND=0
NO SORT	858 AD=0 & MD=0 & MND>0
SOME SORT	1,036 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0

0<AD<1kBq & MD>0	0	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	None	05:50
ACT_P <5 kBq	477	34.0%	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 19,170
 2-SEC RECORDS WITH SORTS 1,401 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 305 80.9%
 3 DETECTORS 58 15.4%
 4 DETECTORS 12 3.2%
 5 DETECTORS 2 0.5%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 377
 NET 2-SEC RECORDS WITH SORTS 1,024
 2-SEC PERIODS WITH NO SORTS 18,146
 AVG TIME BETWEEN 2-SEC SORTS 37.4 sec

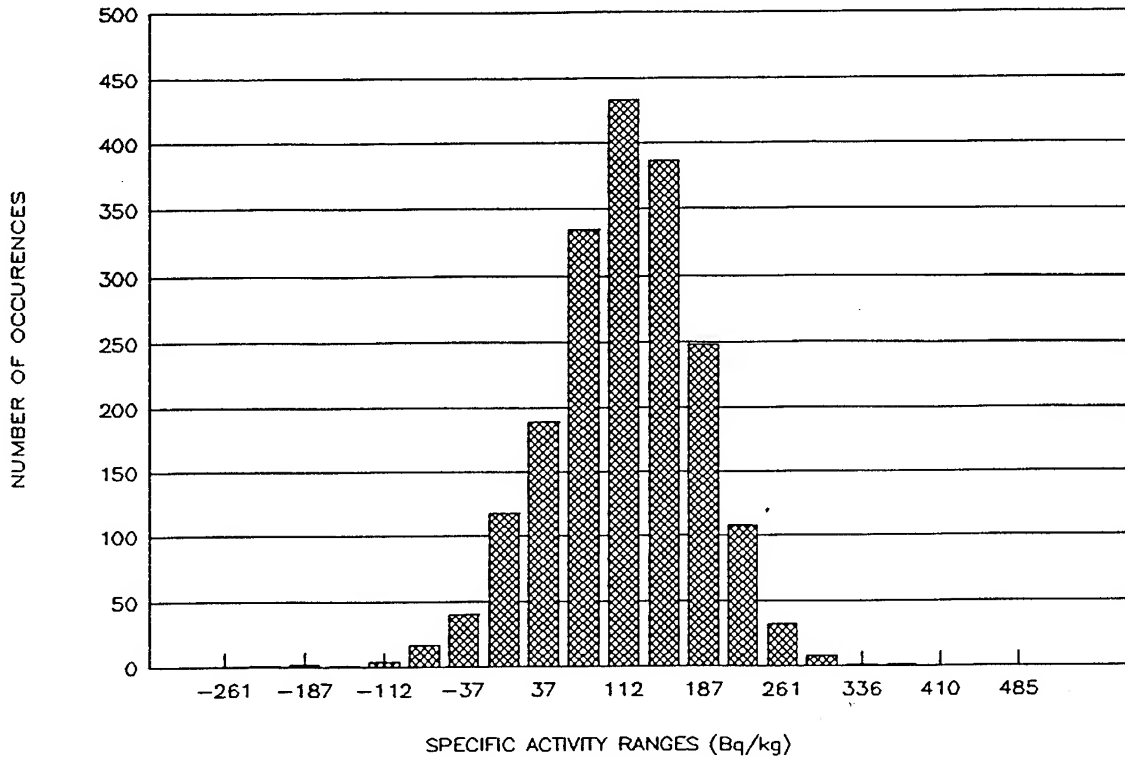
1-GATE SORTS	707	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	10	1.4%	-14000	0	-261	4000	252	18.0%
2	40	5.7%	-12000	1	-224	8000	588	42.0%
3	105	14.9%	-10000	2	-187	12000	185	13.2%
4	144	20.4%	-8000	1	-149	16000	110	7.9%
5	165	23.3%	-6000	4	-112	20000	57	4.1%
6	117	16.5%	-4000	16	-75	24000	43	3.1%
7	98	13.9%	-2000	40	-37	28000	22	1.6%
8	28	4.0%	0	118	0	32000	22	1.6%
TOTAL	707		2000	189	37	36000	13	0.9%
			4000	335	75	40000	19	1.4%
2-GATE SORTS	694		6000	433	112	44000	9	0.6%
DETECTR	SORTS	FREQ%	8000	386	149	48000	8	0.6%
8			10000	248	187	52000	6	0.4%
9	17	2.4%	12000	108	224	56000	6	0.4%
10	61	8.8%	14000	32	261	60000	10	0.7%
11	118	17.0%	16000	8	299	64000	4	0.3%
12	158	22.8%	18000	1	336	68000	5	0.4%
13	155	22.3%	20000	1	373	72000	2	0.1%
14	113	16.3%	22000	0	410	76000	2	0.1%
15	72	10.4%	24000	0	448	80000	2	0.1%
TOTAL	694		26000	0	485	84000	3	0.2%
			>28000	0	0	>84000	33	2.4%
			TOTAL	1923		TOTAL	1401	
SUMMARY TOTALS								
HOT PARTICLE EVENTS			1416	SORTS BY ONE GATE ONLY		707		
MULTIPARTICLE EVENTS			1189	SORTS BY TWO GATES		694		
DISTRIBUTED EVENTS			1575					

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

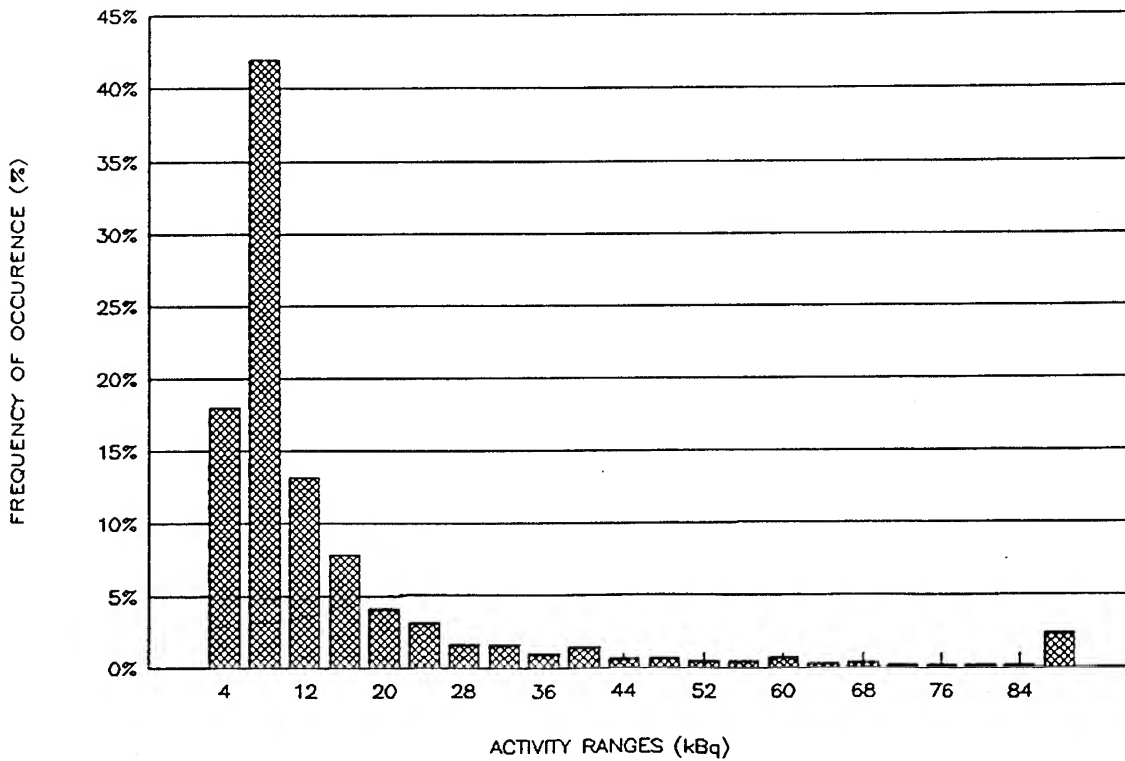
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 06-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 06-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 06-Apr-93

AVERAGE BACKGROUND COUNT RATE	0.81 ± 0.05 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		4.10 tons	98.6 tons
MAXIMUM/SORT		56.2 kg	53.6 kg
MINIMUM/SORT		0.7 kg	45.5 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			96.0%
EQUIVALENT SOIL-IN-GROUND	3.25 yd ³	78.2 yd ³	81.4 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	22,754 kBq		
MAXIMUM/SORT	304 kBq		
MINIMUM/SORT	2.6 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	13,771 kBq	9,812 kBq	
MINIMUM/SORT	268 kBq	18 kBq	
SPECIFIC ACTIVITY	-16679 Bq	-20 kBq	
	3,361 Bq/kg	100 Bq/kg	
WORK HISTORY			
WORK DAY START	05:30 AM	WORK DAY END	05:30 PM
PLANT START-UP	05:30 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	05:50 AM	END SOIL PROCESSING	05:00 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS		12.0 hr	
AVAILABLE HOURS		12.0 hr	
ACTUAL PROCESS HOURS (total 20-sec records)		10.65 hr	
DOWN-TIME		1.35 hr	
TOTAL SYSTEM PAUSE		0.53 hr	
NONAVAILABLE HOURS		0.0 hr	
START-UP		0.34 hr	
SHUT-DOWN		0.48 hr	
PLANT PERFORMANCE		88.8%	
PRODUCTIVITY		88.8%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)		3,373	
NONPROCESS RECORDS (Test, calibration, etc)		1	
20-SEC PROCESS RECORDS		1,917	
TOTAL SORT		30 MD>0 & MND=0	
NO SORT		506 AD=0 & MD=0 & MND>0	
SOME SORT		1,380 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS		1	
0<AD<1kBq & MD>0	2		UNEXPLAIN PAUSE
AD=0 & MD	0		TIME TIME
AD<0 & MD	2		05:50:36 05:50
ACT_P <5 kBq	474 32.6%		11:43:36

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	19,170	13:13:16
2-SEC RECORDS WITH SORTS	1,456 (ACT_P >0 kBq)	14:14:16
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		
2 DETECTORS	309	83.1%
3 DETECTORS	55	14.8%
4 DETECTORS	7	1.9%
5 DETECTORS	1	0.3%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	372	
NET 2-SEC RECORDS WITH SORTS	1,084	
2-SEC PERIODS WITH NO SORTS	18,086	
AVG TIME BETWEEN 2-SEC SORTS	35.4 sec	

1-GATE SORTS	736	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	19	2.6%	-14000	4	-261	4000	233	16.0%
2	99	13.5%	-12000	2	-224	8000	620	42.6%
3	118	16.0%	-10000	1	-187	12000	197	13.5%
4	165	22.4%	-8000	2	-149	16000	105	7.2%
5	145	19.7%	-6000	8	-112	20000	55	3.8%
6	112	15.2%	-4000	16	-75	24000	54	3.7%
7	69	9.4%	-2000	45	-37	28000	34	2.3%
8	9	1.2%	0	112	0	32000	23	1.6%
TOTAL	736		2000	213	37	36000	17	1.2%
			4000	322	75	40000	12	0.8%
2-GATE SORTS	720		6000	396	112	44000	18	1.2%
DETECTR	SORTS	FREQ%	8000	365	149	48000	6	0.4%
8			10000	224	187	52000	6	0.4%
9	43	6.0%	12000	110	224	56000	4	0.3%
10	91	12.6%	14000	69	261	60000	11	0.8%
11	164	22.8%	16000	21	299	64000	8	0.5%
12	161	22.4%	18000	8	336	68000	7	0.5%
13	129	17.9%	20000	0	373	72000	6	0.4%
14	95	13.2%	22000	0	410	76000	2	0.1%
15	37	5.1%	24000	0	448	80000	1	0.1%
TOTAL	720		26000	0	485	84000	0	0.0%
			>28000	0	0	>84000	37	2.5%
			TOTAL	1918		TOTAL	1456	

SUMMARY TOTALS

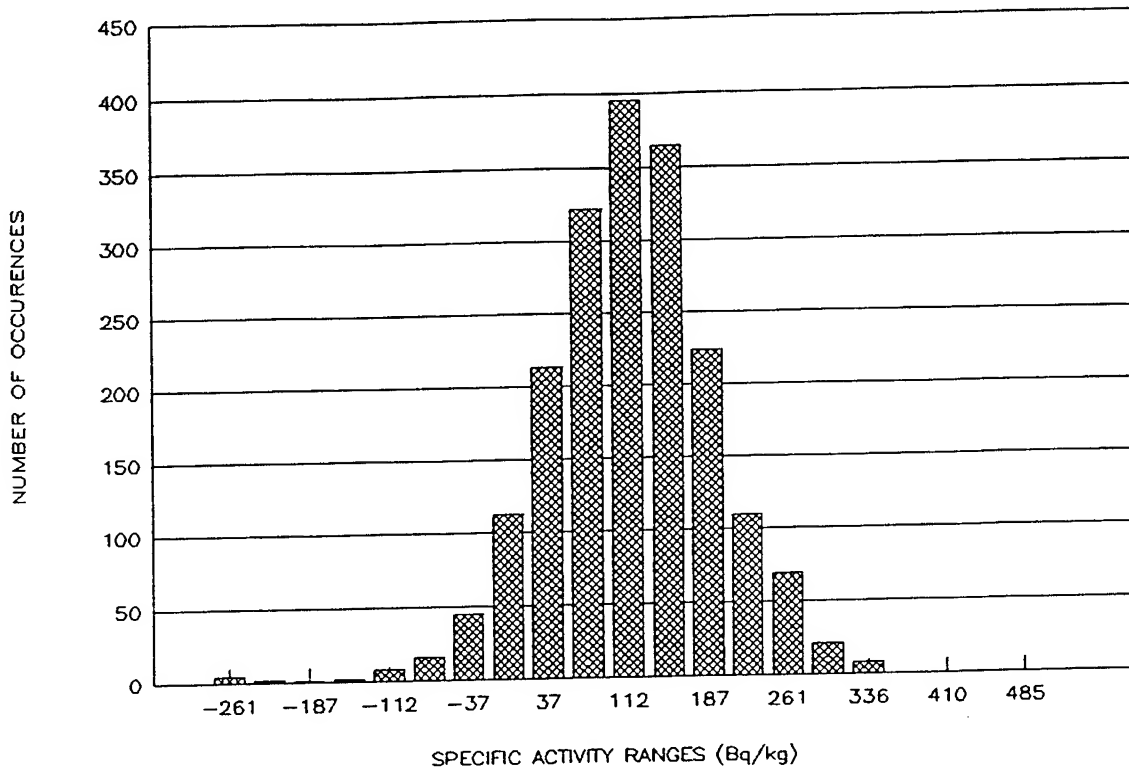
HOT PARTICLE EVENTS	1481	SORTS BY ONE GATE ONLY	736
MULTIPARTICLE EVENTS	2633	SORTS BY TWO GATES	720
DISTRIBUTED EVENTS	2012		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

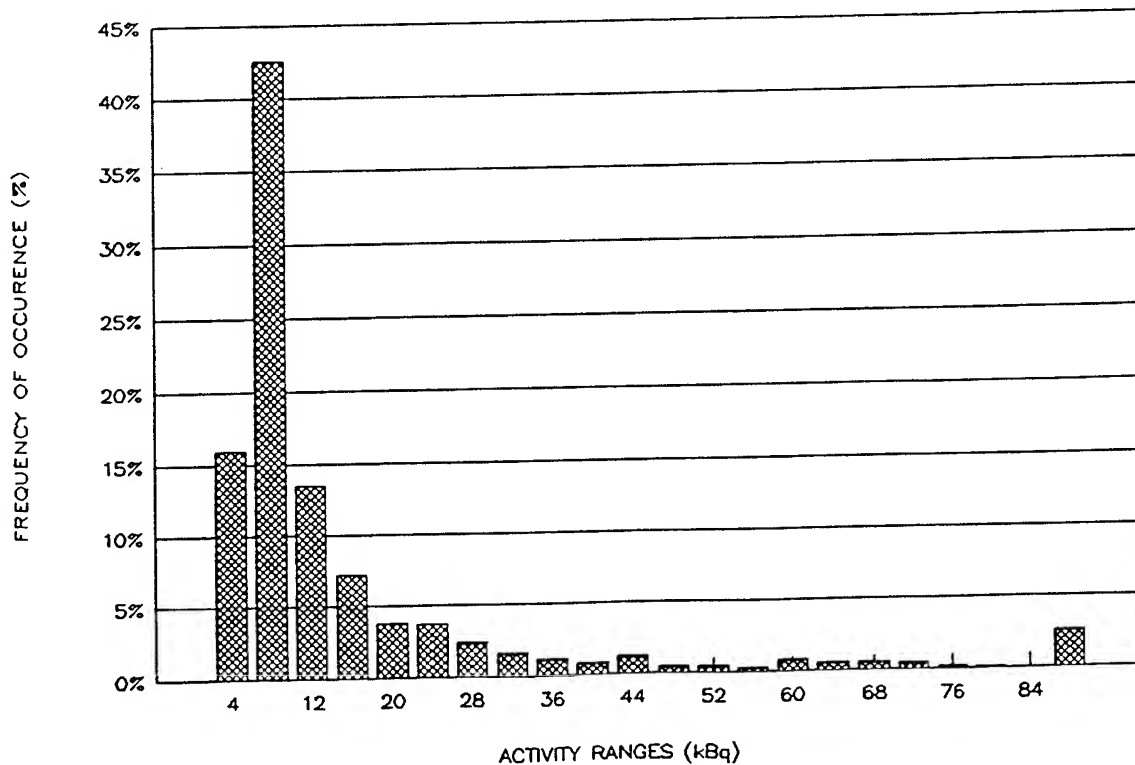
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 06-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 06-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 05-Apr-93

AVERAGE BACKGROUND COUNT RATE 0.71 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.60 tons	96.6 tons
MAXIMUM/SORT	56.2 kg	53.6 kg
MINIMUM/SORT	0.7 kg	47.5 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		99.4%
EQUIVALENT SOIL-IN-GROUND	0.48 yd³	76.5 yd³ 77.0 yd³/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	6,780 kBq
MAXIMUM/SORT	218 kBq
MINIMUM/SORT	2.5 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	3,010 kBq	1,247 kBq
MAXIMUM/SORT	191 kBq	14 kBq
MINIMUM/SORT	0 Bq	-11 kBq
SPECIFIC ACTIVITY	4,997 Bq/kg	13 Bq/kg

WORK HISTORY

WORK DAY START 05:44 AM
 PLANT START-UP 05:44 AM
 START SOIL PROCESSING 06:22 AM
 LUNCH START 11:30 AM

WORK DAY END 05:30 PM
 PLANT SHUT-DOWN 05:30 PM
 END SOIL PROCESSING 05:00 PM
 LUNCH PERIOD 0.0 hr

WORK HOURS	11.8 hr
AVAILABLE HOURS	11.8 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.07 hr
DOWN-TIME	1.69 hr
TOTAL SYSTEM PAUSE	1.14 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.63 hr
SHUT-DOWN	0.49 hr
PLANT PERFORMANCE	85.6%
PRODUCTIVITY	85.6%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 2,267
 NONPROCESS RECORDS (Test, calibration, etc) 7

20-SEC PROCESS RECORDS	1,813		
TOTAL SORT	2 MD>0 & MND=0		
NO SORT	1,421 AD=0 & MD=0 & MND>0		
SOME SORT	390 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	1	UNEXPLAIN	PAUSE
AD=0 & MD	1	TIME	TIME
AD<0 & MD	0	14:34:00	05:49
ACT_P <5 kBq	140 30.8%	15:12:05	14:13

JA SOIL CLEANUP PLANT LOG SUMMARY

14:35

2-SEC COUNT PERIODS 18,130
 2-SEC RECORDS WITH SORTS 454 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 100 83.3%
 3 DETECTORS 19 15.8%
 4 DETECTORS 1 0.8%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 120
 NET 2-SEC RECORDS WITH SORTS 334
 2-SEC PERIODS WITH NO SORTS 17,796
 AVG TIME BETWEEN 2-SEC SORTS 108.6 sec

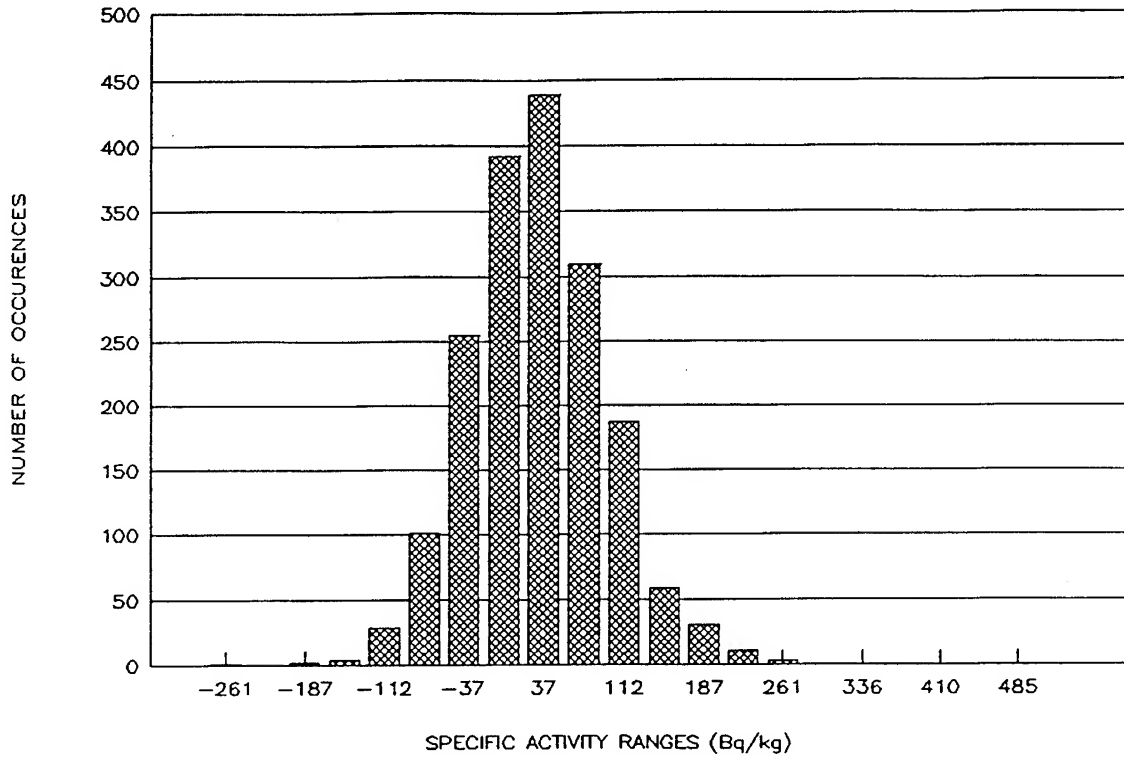
1-GATE SORTS	228	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	1	0.4%	-14000	1	-261	4000	69 15.2%
2	10	4.4%	-12000	0	-224	8000	189 41.6%
3	30	13.2%	-10000	2	-187	12000	70 15.4%
4	47	20.6%	-8000	4	-149	16000	21 4.6%
5	59	25.9%	-6000	28	-112	20000	27 5.9%
6	46	20.2%	-4000	101	-75	24000	11 2.4%
7	29	12.7%	-2000	255	-37	28000	11 2.4%
8	6	2.6%	0	392	0	32000	10 2.2%
TOTAL	228		2000	439	37	36000	4 0.9%
			4000	309	75	40000	3 0.7%
2-GATE SORTS	226	6000	187	112	44000	7 1.5%	44
DETECTR	SORTS	FREQ%	8000	58	149	48000	4 0.9%
8			10000	30	187	52000	2 0.4%
9	6	2.7%	12000	11	224	56000	7 1.5%
10	17	7.5%	14000	3	261	60000	3 0.7%
11	47	20.8%	16000	0	299	64000	3 0.7%
12	50	22.1%	18000	0	336	68000	1 0.2%
13	50	22.1%	20000	0	373	72000	1 0.2%
14	41	18.1%	22000	0	410	76000	2 0.4%
15	15	6.6%	24000	0	448	80000	0 0.0%
TOTAL	226		26000	0	485	84000	1 0.2%
			>28000	0	0	>84000	8 1.8%
			TOTAL	1820		TOTAL	454
SUMMARY TOTALS							
	HOT PARTICLE EVENTS	445			SORTS BY ONE GATE ONLY	228	
	MULTIPARTICLE EVENTS	285			SORTS BY TWO GATES	226	
	DISTRIBUTED EVENTS	166					

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

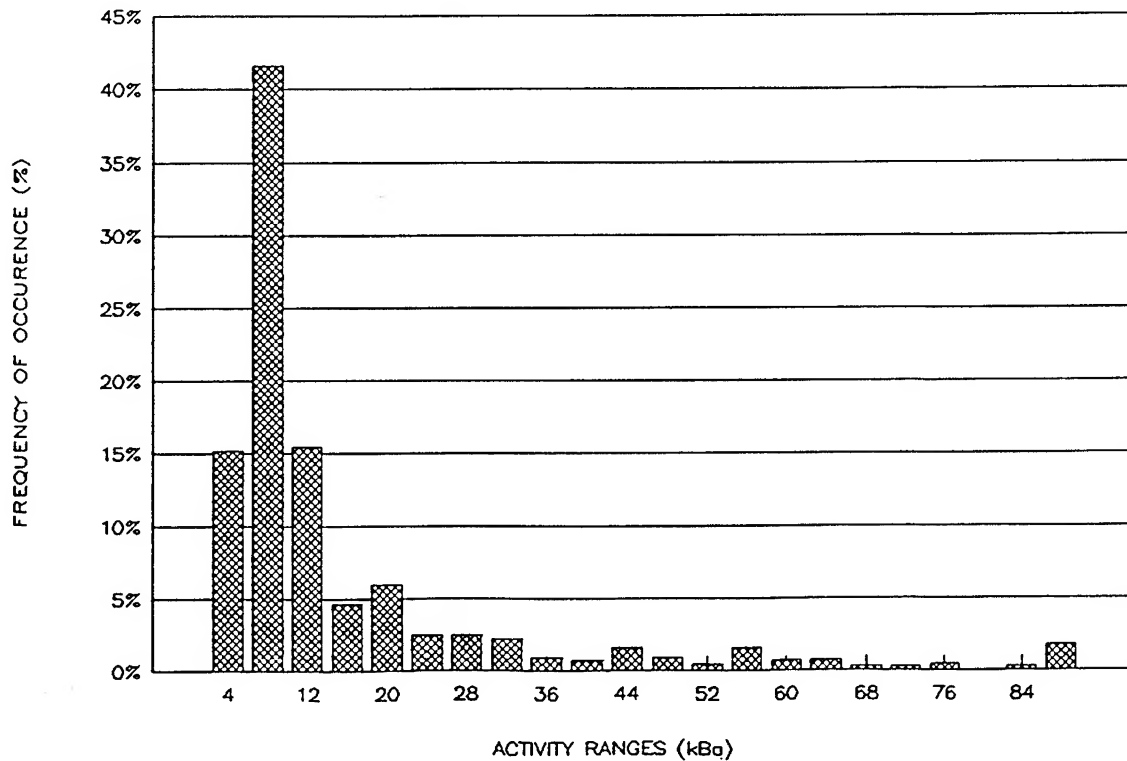
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 05-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 05-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 05-Apr-93

AVERAGE BACKGROUND COUNT RATE 0.79 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.88 tons	97.0 tons
MAXIMUM/SORT	56.2 kg	53.6 kg
MINIMUM/SORT	0.7 kg	47.5 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		99.1%
EQUIVALENT SOIL-IN-GROUND	0.70 yd ³	76.9 yd ³ 77.6 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	6,374 kBq
MAXIMUM/SORT	222 kBq
MINIMUM/SORT	2.7 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	3,412 kBq	165 kBq
MAXIMUM/SORT	155 kBq	15 kBq
MINIMUM/SORT	-1079 Bq	-12 kBq
SPECIFIC ACTIVITY	3,884 Bq/kg	2 Bq/kg

WORK HISTORY

WORK DAY START 05:44 AM
 PLANT START-UP 05:44 AM
 START SOIL PROCESSING 05:48 AM
 LUNCH START 11:30 AM

WORK DAY END 05:30 PM
 PLANT SHUT-DOWN 05:30 PM
 END SOIL PROCESSING 05:05 PM
 LUNCH PERIOD 0.0 hr

WORK HOURS	11.8 hr
AVAILABLE HOURS	11.8 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.15 hr
DOWN-TIME	1.62 hr
TOTAL SYSTEM PAUSE	1.15 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.08 hr
SHUT-DOWN	0.41 hr
PLANT PERFORMANCE	86.3%
PRODUCTIVITY	86.3%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 2,221
 NONPROCESS RECORDS (Test, calibration, etc) 0

20-SEC PROCESS RECORDS

TOTAL SORT	1,827	4 MD>0 & MND=0
NO SORT	1,242	AD=0 & MD=0 & MND>0
SOME SORT	581	AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0	
0<AD<1kBq & MD>0	0	UNEXPLAIN PAUSE
AD=0 & MD	2	TIME TIME
AD<0 & MD	1	05:48:45 05:49
ACT_P <5 kBq	97 24.6%	14:34:00 14:13

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 18,270 14:49:47 14:34
 2-SEC RECORDS WITH SORTS 394 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 90 82.6%
 3 DETECTORS 14 12.8%
 4 DETECTORS 5 4.6%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 109
 NET 2-SEC RECORDS WITH SORTS 285
 2-SEC PERIODS WITH NO SORTS 17,985
 AVG TIME BETWEEN 2-SEC SORTS 128.2 sec

1-GATE SORTS		209	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT FREQ%		ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	12	5.7%	-14000	0	-261	4000	37	9.4%	4
2	15	7.2%	-12000	0	-224	8000	157	39.8%	8
3	35	16.7%	-10000	3	-187	12000	55	14.0%	12
4	49	23.4%	-8000	11	-149	16000	33	8.4%	16
5	57	27.3%	-6000	39	-112	20000	29	7.4%	20
6	24	11.5%	-4000	162	-75	24000	22	5.6%	24
7	14	6.7%	-2000	281	-37	28000	9	2.3%	28
8	3	1.4%	0	420	0	32000	10	2.5%	32
TOTAL	209		2000	394	37	36000	6	1.5%	36
			4000	270	75	40000	8	2.0%	40
2-GATE SORTS		185	6000	145	112	44000	1	0.3%	44
DETECTR	SORTS	FREQ%	8000	72	149	48000	1	0.3%	48
8			10000	22	187	52000	2	0.5%	52
9	14	7.6%	12000	5	224	56000	6	1.5%	56
10	23	12.4%	14000	1	261	60000	4	1.0%	60
11	41	22.2%	16000	2	299	64000	3	0.8%	64
12	54	29.2%	18000	0	336	68000	0	0.0%	68
13	34	18.4%	20000	0	373	72000	0	0.0%	72
14	14	7.6%	22000	0	410	76000	2	0.5%	76
15	5	2.7%	24000	0	448	80000	0	0.0%	80
TOTAL	185		26000	0	485	84000	0	0.0%	84
			>28000	0	0	>84000	9	2.3%	>84
			TOTAL	1827		TOTAL	394		

SUMMARY TOTALS

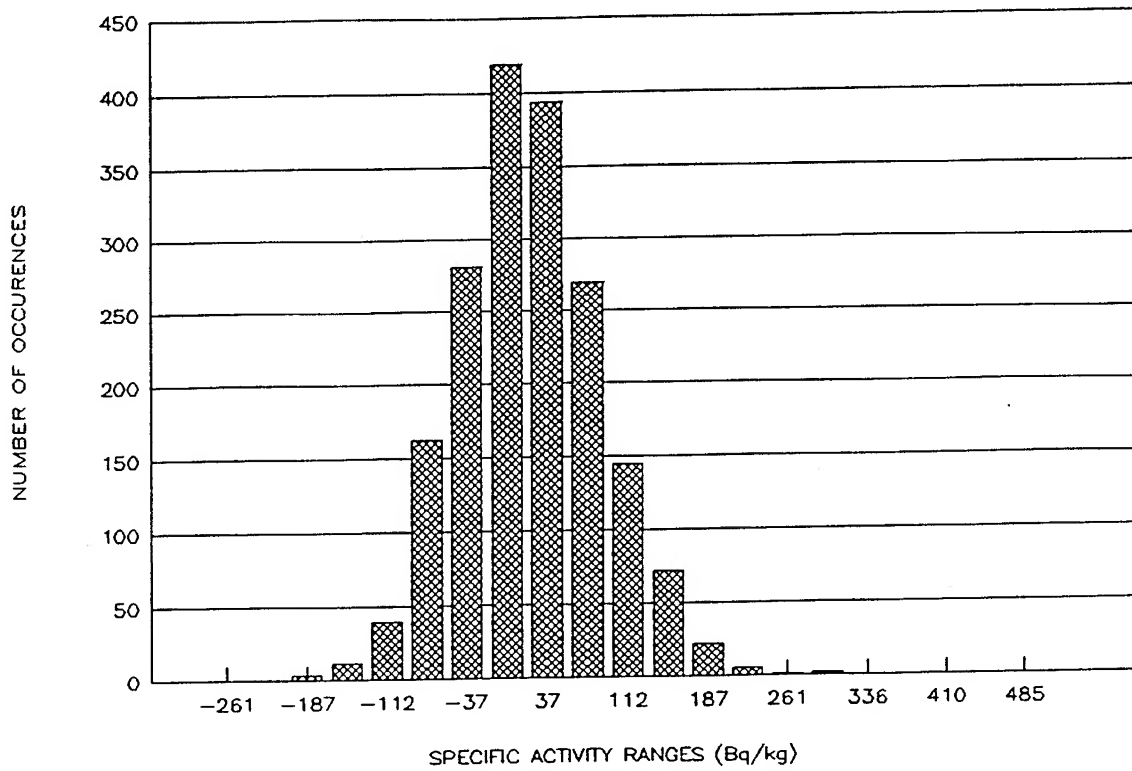
HOT PARTICLE EVENTS	379	SORTS BY ONE GATE ONLY	209
MULTIPARTICLE EVENTS	593	SORTS BY TWO GATES	185
DISTRIBUTED EVENTS	329		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 05-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 03-Apr-93

AVERAGE BACKGROUND COUNT RATE 0.70 \pm 0.03 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.99 tons	78.5 tons
MAXIMUM/SORT	56.2 kg	53.6 kg
MINIMUM/SORT	0.7 kg	46.9 kg

		98.8%
WEIGHT RECOVERY OR VOLUME RECOVERY		
EQUIVALENT SOIL-IN-GROUND	0.79 yd ³	62.3 yd ³ 63.0 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	9,506 kBq
MAXIMUM/SORT	452 kBq
MINIMUM/SORT	2.6 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

	4,288 kBq	3,287 kBq
MAXIMUM/SORT	257 kBq	18 kBq
MINIMUM/SORT	0 Bq	-7 kBq
SPECIFIC ACTIVITY	4,327 Bq/kg	42 Bq/kg

WORK HISTORY

WORK DAY START	06:07 AM
PLANT START-UP	06:07 AM
START SOIL PROCESSING	06:40 AM
LUNCH START	11:30 AM

WORK DAY END	05:30 PM
PLANT SHUT-DOWN	05:30 PM
END SOIL PROCESSING	03:01 PM
LUNCH PERIOD	0.0 hr

WORK HOURS	11.4 hr
AVAILABLE HOURS	11.4 hr
ACTUAL PROCESS HOURS (total 20-sec records)	8.24 hr
DOWN-TIME	3.14 hr
TOTAL SYSTEM PAUSE	0.62 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.55 hr
SHUT-DOWN	2.48 hr
PLANT PERFORMANCE	72.4%
PRODUCTIVITY	72.4%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 2,120

NONPROCESS RECORDS (Test, calibration, etc) 12

20-SEC PROCESS RECORDS 1,484

TOTAL SORT	5 MD>0 & MND=0
NO SORT	965 AD=0 & MD=0 & MND>0
SOME SORT	514 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0

0<AD<1kBq & MD>0	0
AD=0 & MD	0
AD<0 & MD	0

ACT_P <5 kBq 218 34.3%

UNEXPLAIN	PAUSE
TIME	TIME
None	06:07
	12:17

JA SOIL CLEANUP PLANT LOG SUMMARY

14:52

2-SEC COUNT PERIODS 14,840

2-SEC RECORDS WITH SORTS 636 (ACT_P >0 kBq)

2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	142	80.2%
3 DETECTORS	29	16.4%
4 DETECTORS	5	2.8%
5 DETECTORS	1	0.6%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	177	

NET 2-SEC RECORDS WITH SORTS 459

2-SEC PERIODS WITH NO SORTS 14,381

AVG TIME BETWEEN 2-SEC SORTS 64.7 sec

1-GATE SORTS DETECTR	SORTS	323 FREQ%	ACT_ND (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT FREQ% (#)	ACT_P (kBq)
1	1	0.3%	-14000	1	-261	4000	108 17.0%	4
2	25	7.7%	-12000	2	-224	8000	268 42.1%	8
3	46	14.2%	-10000	3	-187	12000	90 14.2%	12
4	70	21.7%	-8000	3	-149	16000	45 7.1%	16
5	57	17.6%	-6000	10	-112	20000	24 3.8%	20
6	55	17.0%	-4000	41	-75	24000	17 2.7%	24
7	50	15.5%	-2000	135	-37	28000	14 2.2%	28
8	19	5.9%	0	257	0	32000	10 1.6%	32
TOTAL	323		2000	352	37	36000	10 1.6%	36
			4000	283	75	40000	7 1.1%	40
2-GATE SORTS		313	6000	194	112	44000	3 0.5%	44
DETECTR	SORTS	FREQ%	8000	86	149	48000	3 0.5%	48
8			10000	53	187	52000	1 0.2%	52
9	9	2.9%	12000	29	224	56000	7 1.1%	56
10	41	13.1%	14000	17	261	60000	5 0.8%	60
11	58	18.5%	16000	22	299	64000	4 0.6%	64
12	60	19.2%	18000	6	336	68000	2 0.3%	68
13	63	20.1%	20000	2	373	72000	1 0.2%	72
14	41	13.1%	22000	0	410	76000	0 0.0%	76
15	41	13.1%	24000	0	448	80000	1 0.2%	80
TOTAL	313		26000	0	485	84000	0 0.0%	84
			>28000	0	0	>84000	16 2.5%	>84
			TOTAL	1496		TOTAL	636	

SUMMARY TOTALS

HOT PARTICLE EVENTS	626	SORTS BY ONE GATE ONLY	323
MULTIPARTICLE EVENTS	460	SORTS BY TWO GATES	313
DISTRIBUTED EVENTS	392		

REC CODE EXPLANATION

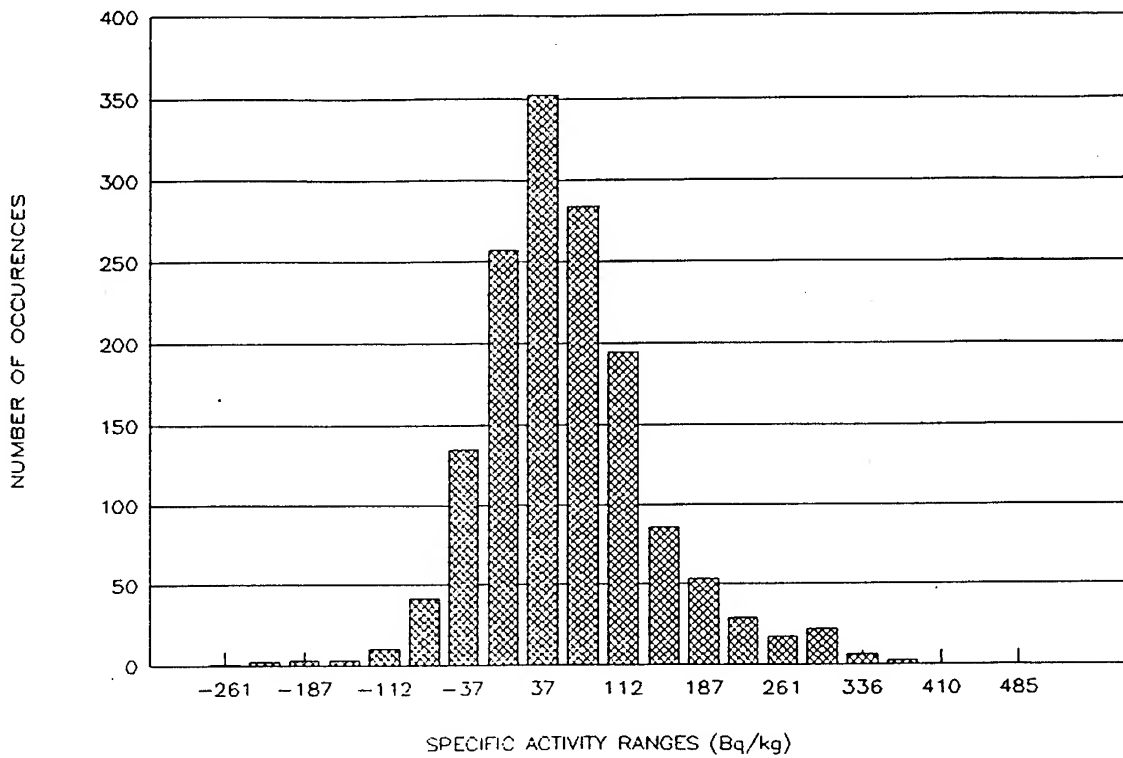
1.00 Source check (Soil on belt)

2.00 Empty belt

3.00 Test (No process soil)

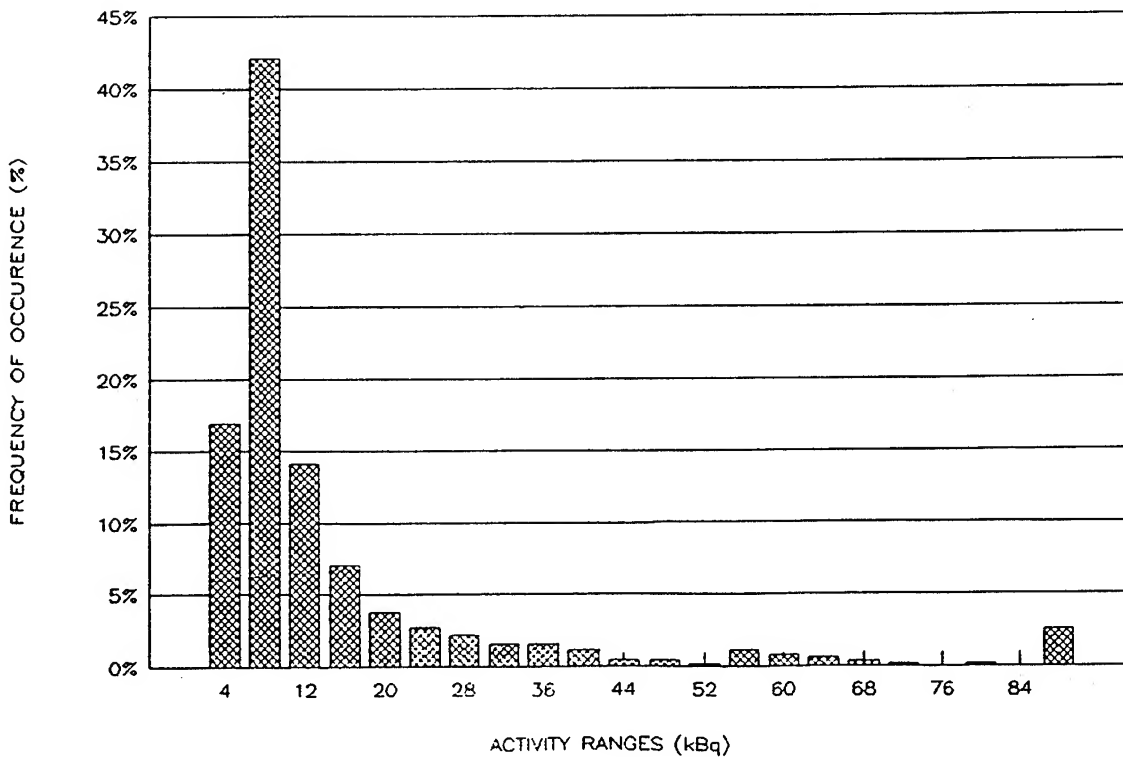
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 03-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 03-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 03-Apr-93

AVERAGE BACKGROUND COUNT RATE	0.79 ± 0.04 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		1.41 tons	78.1 tons
MAXIMUM/SORT		53.6 kg	53.6 kg
MINIMUM/SORT		0.7 kg	45.5 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			98.2%
EQUIVALENT SOIL-IN-GROUND	1.12 yd ³	61.9 yd ³	63.0 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	9,346 kBq		
MAXIMUM/SORT	583 kBq		
MINIMUM/SORT	2.6 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	5,045 kBq	1,751 kBq	
MAXIMUM/SORT	396 kBq	18 kBq	
MINIMUM/SORT	0 Bq	-10 kBq	
SPECIFIC ACTIVITY	3,585 Bq/kg	22 Bq/kg	
WORK HISTORY			
WORK DAY START	06:07 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:07 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:40 AM	END SOIL PROCESSING	03:00 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS		11.4 hr	
AVAILABLE HOURS		11.4 hr	
ACTUAL PROCESS HOURS (total 20-sec records)		8.24 hr	
DOWN-TIME		3.14 hr	
TOTAL SYSTEM PAUSE		0.59 hr	
NONAVAILABLE HOURS		0.0 hr	
START-UP		0.55 hr	
SHUT-DOWN		2.49 hr	
PLANT PERFORMANCE		72.4%	
PRODUCTIVITY		72.4%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)		2,045	
NONPROCESS RECORDS (Test, calibration, etc)		16	
20-SEC PROCESS RECORDS		1,484	
TOTAL SORT		11 MD>0 & MND=0	
NO SORT		847 AD=0 & MD=0 & MND>0	
SOME SORT		626 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS		0	
0<AD<1kBq & MD>0	2		UNEXPLAIN PAUSE
AD=0 & MD	0		TIME TIME
AD<0 & MD	0		10:51:04 06:07
ACT_P <5 kBq	167	29.8%	14:17:24 14:52

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 14,840
 2-SEC RECORDS WITH SORTS 561 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 131 85.1%
 3 DETECTORS 20 13.0%
 4 DETECTORS 2 1.3%
 5 DETECTORS 1 0.6%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 154
 NET 2-SEC RECORDS WITH SORTS 407
 2-SEC PERIODS WITH NO SORTS 14,433
 AVG TIME BETWEEN 2-SEC SORTS 72.9 sec

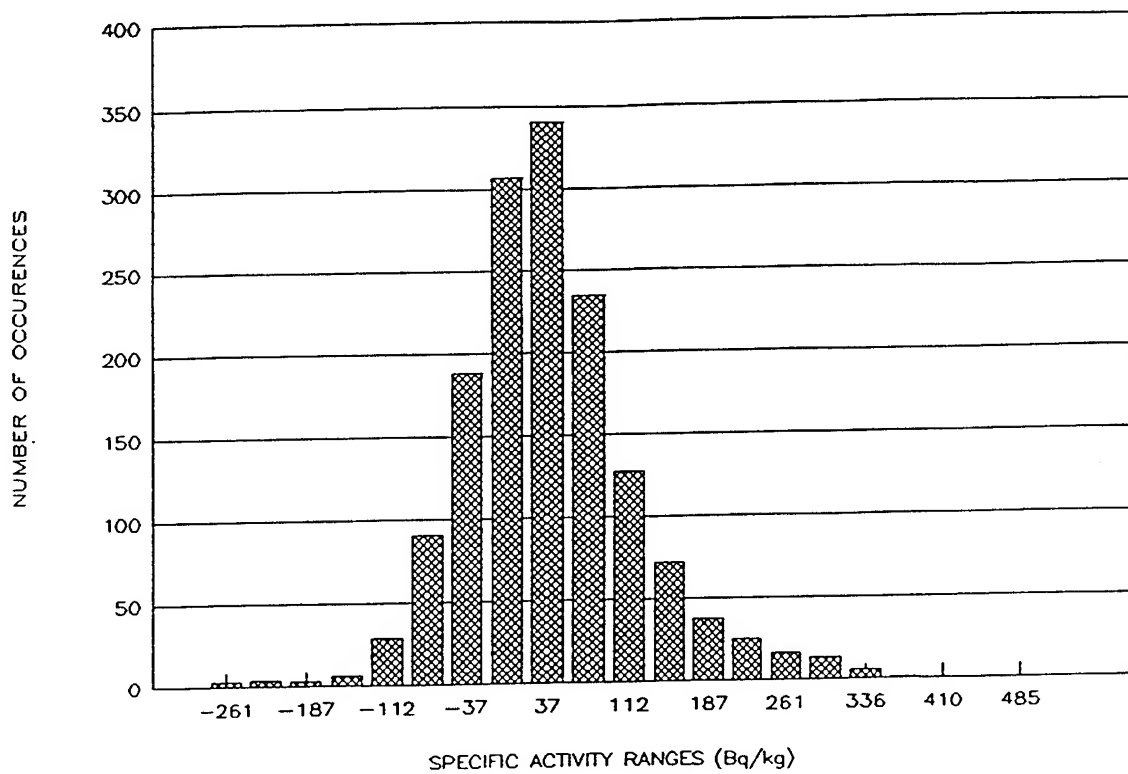
1-GATE SORTS		297	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%		ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	7	2.4%	-14000	3	-261	4000	79	14.1%	4
2	39	13.1%	-12000	4	-224	8000	226	40.3%	8
3	47	15.8%	-10000	3	-187	12000	86	15.3%	12
4	65	21.9%	-8000	6	-149	16000	44	7.8%	16
5	54	18.2%	-6000	29	-112	20000	30	5.3%	20
6	46	15.5%	-4000	90	-75	24000	16	2.9%	24
7	29	9.8%	-2000	188	-37	28000	14	2.5%	28
8	10	3.4%	0	307	0	32000	5	0.9%	32
TOTAL	297		2000	340	37	36000	10	1.8%	36
			4000	234	75	40000	8	1.4%	40
			6000	127	112	44000	7	1.2%	44
2-GATE SORTS		264	8000	72	149	48000	2	0.4%	48
DETECTR	SORTS	FREQ%	10000	37	187	52000	4	0.7%	52
8			12000	25	224	56000	3	0.5%	56
9	22	8.3%	14000	16	261	60000	3	0.5%	60
10	32	12.1%	16000	13	299	64000	4	0.7%	64
11	58	22.0%	18000	5	336	68000	1	0.2%	68
12	46	17.4%	20000	1	373	72000	1	0.2%	72
13	46	17.4%	22000	0	410	76000	2	0.4%	76
14	42	15.9%	24000	0	448	80000	0	0.0%	80
15	18	6.8%	26000	0	485	84000	0	0.0%	84
TOTAL	264		26000	0	485	84000	0	0.0%	84
			>28000	0	0	>84000	16	2.9%	>84
			TOTAL	1500		TOTAL	561		
SUMMARY TOTALS									
HOT PARTICLE EVENTS			551	SORTS BY ONE GATE ONLY			297		
MULTIPARTICLE EVENTS			690	SORTS BY TWO GATES			264		
DISTRIBUTED EVENTS			856						

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 03-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 02-Apr-93

AVERAGE BACKGROUND COUNT RATE 0.70 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN	
MASS TOTAL	0.20 tons	37.1 tons	
MAXIMUM/SORT	4 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	49.5 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.5%
EQUIVALENT SOIL-IN-GROUND	0.16 yd³	29.4 yd³	29.5 yd³/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	3,427 kBq
MAXIMUM/SORT	332 kBq
MINIMUM/SORT	3.0 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

	1,460 kBq	157 kBq
MAXIMUM/SORT	251 kBq	15 kBq
MINIMUM/SORT	0 Bq	-11 kBq
SPECIFIC ACTIVITY	7,459 Bq/kg	4 Bq/kg

WORK HISTORY

WORK DAY START	05:55 AM	WORK DAY END	05:30 PM
PLANT START-UP	05:55 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	07:48 AM	END SOIL PROCESSING	11:39 AM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr

WORK HOURS	11.1 hr
AVAILABLE HOURS	11.1 hr
ACTUAL PROCESS HOURS (total 20-sec records)	3.86 hr
DOWN-TIME	7.22 hr
TOTAL SYSTEM PAUSE	6.06 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	1.89 hr
SHUT-DOWN	5.84 hr
PLANT PERFORMANCE	34.8%
PRODUCTIVITY	34.8%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 870

NONPROCESS RECORDS (Test, calibration, etc) 5

20-SEC PROCESS RECORDS

TOTAL SORT	695	0 MD>0 & MND=0
NO SORT	534	AD=0 & MD=0 & MND>0
SOME SORT	161	AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0	
0<AD<1kBq & MD>0	0	UNEXPLAIN PAUSE
AD=0 & MD	0	TIME TIME
AD<0 & MD	0	None 05:58
ACT_P <5 kBq	52 29.7%	06:30

JA SOIL CLEANUP PLANT LOG SUMMARY

11:39

2-SEC COUNT PERIODS 6,950

2-SEC RECORDS WITH SORTS 175 (ACT_P >0 kBq)

2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	42	73.7%
3 DETECTORS	11	19.3%
4 DETECTORS	3	5.3%
5 DETECTORS	1	1.8%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	57	

NET 2-SEC RECORDS WITH SORTS 118

2-SEC PERIODS WITH NO SORTS 6,832

AVG TIME BETWEEN 2-SEC SORTS 117.8 sec

1-GATE SORTS	94	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)
1	0	0.0%	-14000	0	-261	4000	31 17.7%
2	7	7.4%	-12000	1	-224	8000	59 33.7%
3	15	16.0%	-10000	1	-187	12000	21 12.0%
4	16	17.0%	-8000	0	-149	16000	12 6.9%
5	8	8.5%	-6000	17	-112	20000	13 7.4%
6	23	24.5%	-4000	46	-75	24000	3 1.7%
7	21	22.3%	-2000	122	-37	28000	5 2.9%
8	4	4.3%	0	142	0	32000	2 1.1%
TOTAL	94		2000	181	37	36000	3 1.7%
			4000	110	75	40000	4 2.3%
2-GATE SORTS	81		6000	41	112	44000	5 2.9%
DETECTR	SORTS	FREQ%	8000	22	149	48000	5 2.9%
8			10000	12	187	52000	2 1.1%
9	3	3.7%	12000	4	224	56000	1 0.6%
10	13	16.0%	14000	0	261	60000	1 0.6%
11	12	14.8%	16000	1	299	64000	1 0.6%
12	13	16.0%	18000	0	336	68000	0 0.0%
13	7	8.6%	20000	0	373	72000	0 0.0%
14	18	22.2%	22000	0	410	76000	0 0.0%
15	15	18.5%	24000	0	448	80000	0 0.0%
TOTAL	81		26000	0	485	84000	0 0.0%
			>28000	0	0	>84000	7 4.0%
			TOTAL	700		TOTAL	175

SUMMARY TOTALS

HOT PARTICLE EVENTS	161	SORTS BY ONE GATE ONLY	94
MULTIPARTICLE EVENTS	129	SORTS BY TWO GATES	81
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

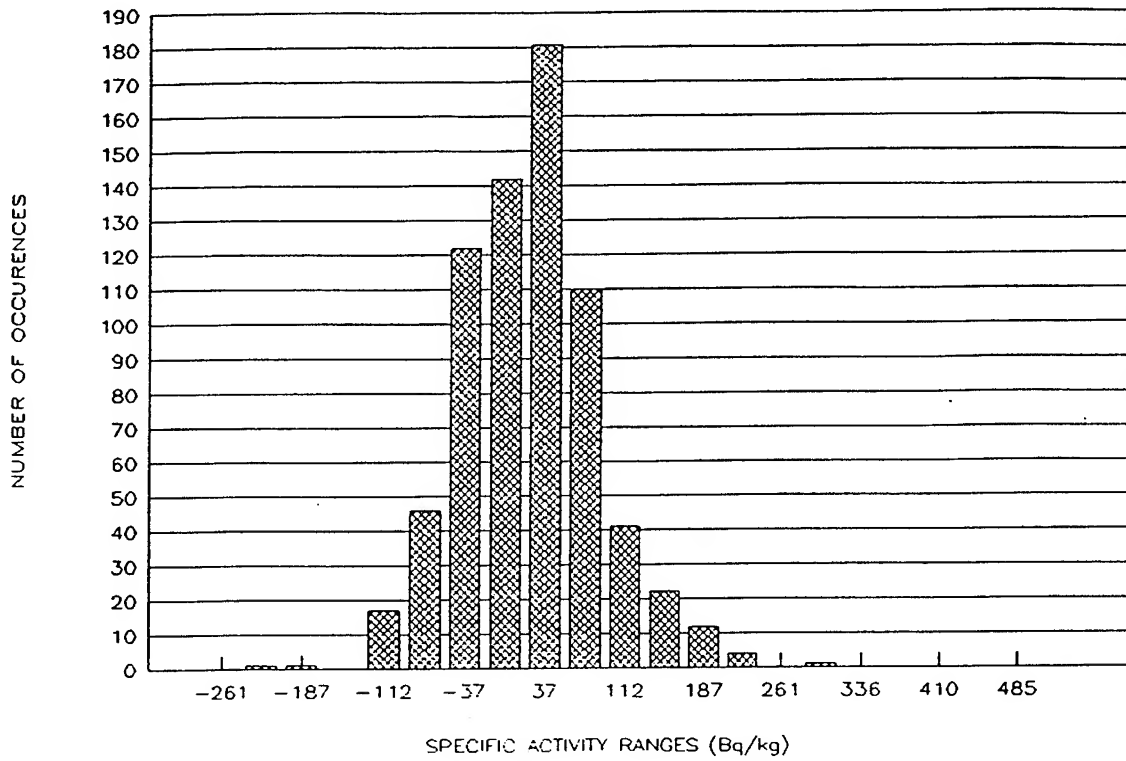
1.00 Source check (Soil on belt)

2.00 Empty belt

3.00 Test (No process soil)

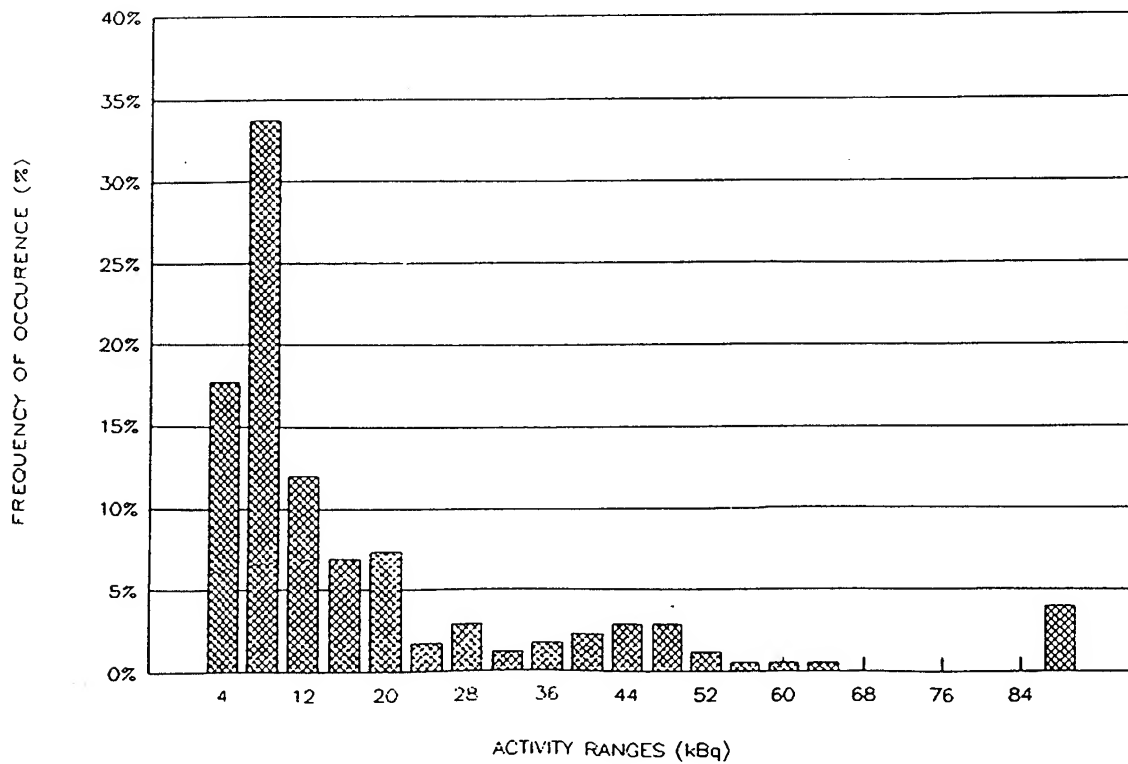
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 02-Apr-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 02-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 02-Apr-93

AVERAGE BACKGROUND COUNT RATE	0.76 ± 0.06 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	0.25 tons	37.2 tons	
MAXIMUM/SORT	5.4 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	48.2 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.3%
EQUIVALENT SOIL-IN-GROUND	0.20 yd ³	29.5 yd ³	29.7 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	2,822 kBq		
MAXIMUM/SORT	231 kBq		
MINIMUM/SORT	2.8 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	1,488 kBq	(1,574)kBq	
MAXIMUM/SORT	194 kBq	11 kBq	
MINIMUM/SORT	0 Bq	-13 kBq	
SPECIFIC ACTIVITY	5,908 Bq/kg	(42)Bq/kg	
WORK HISTORY			
WORK DAY START	05:55 AM	WORK DAY END	05:30 PM
PLANT START-UP	05:55 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	07:48 AM	END SOIL PROCESSING	11:40 AM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr
WORK HOURS	11.1 hr		
AVAILABLE HOURS	11.1 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	3.88 hr		
DOWN-TIME	7.21 hr		
TOTAL SYSTEM PAUSE	6.04 hr		
NONAVAILABLE HOURS	0.0 hr		
START-UP	1.89 hr		
SHUT-DOWN	5.82 hr		
PLANT PERFORMANCE	35.0%		
PRODUCTIVITY	35.0%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	855		
NONPROCESS RECORDS (Test, calibration, etc)	5		
20-SEC PROCESS RECORDS	698		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	474 AD=0 & MD=0 & MND>0		
SOME SORT	224 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	0	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	None	05:58
ACT_P <5 kBq	45 28.7%		06:30

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS

6,980

11:41

2-SEC RECORDS WITH SORTS

157 (ACT_P >0 kBq)

2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	37	82.2%
3 DETECTORS	7	15.6%
4 DETECTORS	1	2.2%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%

TOTAL 45

NET 2-SEC RECORDS WITH SORTS

112

2-SEC PERIODS WITH NO SORTS

6,868

AVG TIME BETWEEN 2-SEC SORTS

124.6 sec

1-GATE SORTS DETECTR	78 SORTS	78 FREQ%	ACT_ND (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT FREQ (#)	FREQ%	ACT_P (kBq)
1	2	2.6%	-14000	0	-261	4000	25	15.9%	4
2	13	16.7%	-12000	2	-224	8000	55	35.0%	8
3	12	15.4%	-10000	5	-187	12000	22	14.0%	12
4	12	15.4%	-8000	34	-149	16000	12	7.6%	16
5	15	19.2%	-6000	81	-112	20000	7	4.5%	20
6	15	19.2%	-4000	108	-75	24000	5	3.2%	24
7	9	11.5%	-2000	165	-37	28000	4	2.5%	28
8	0	0.0%	0	142	0	32000	5	3.2%	32
TOTAL	78		2000	78	37	36000	3	1.9%	36
			4000	40	75	40000	0	0.0%	40
2-GATE SORTS	79		6000	18	112	44000	3	1.9%	44
DETECTR	SORTS	FREQ%	8000	16	149	48000	4	2.5%	48
8			10000	11	187	52000	3	1.9%	52
9	8	10.1%	12000	3	224	56000	3	1.9%	56
10	8	10.1%	14000	0	261	60000	0	0.0%	60
11	15	19.0%	16000	0	299	64000	1	0.6%	64
12	16	20.3%	18000	0	336	68000	0	0.0%	68
13	17	21.5%	20000	0	373	72000	0	0.0%	72
14	11	13.9%	22000	0	410	76000	0	0.0%	76
15	4	5.1%	24000	0	448	80000	0	0.0%	80
TOTAL	79		26000	0	485	84000	0	0.0%	84
			>28000	0	0	>84000	5	3.2%	>84
			TOTAL	703		TOTAL	157		

SUMMARY TOTALS

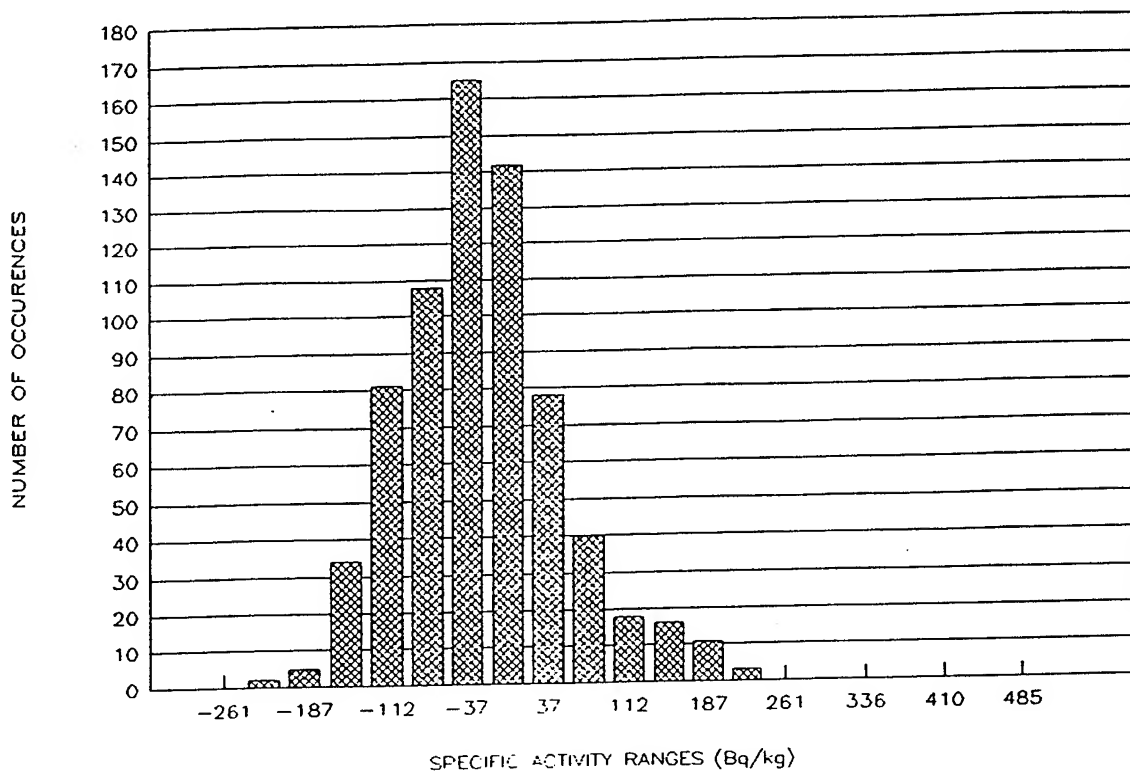
HOT PARTICLE EVENTS	158	SORTS BY ONE GATE ONLY	78
MULTIPARTICLE EVENTS	216	SORTS BY TWO GATES	79
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 02-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 01-Apr-93

AVERAGE BACKGROUND COUNT RATE	0.71 ± 0.04 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	0.55 tons	95.0 tons	
MAXIMUM/SORT	56.2 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	48.2 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.4%
EQUIVALENT SOIL-IN-GROUND	0.44 yd ³	75.3 yd ³	75.7 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	5,254 kBq		
MAXIMUM/SORT	260 kBq		
MINIMUM/SORT	2.4 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	2,454 kBq	145 kBq	
MAXIMUM/SORT	179 kBq	13 kBq	
MINIMUM/SORT	-3132 Bq	-11 kBq	
SPECIFIC ACTIVITY	4,471 Bq/kg	2 Bq/kg	
WORK HISTORY			
WORK DAY START	05:44 AM	WORK DAY END	05:30 PM
PLANT START-UP	05:44 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:19 AM	END SOIL PROCESSING	04:55 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS	11.8 hr		
AVAILABLE HOURS	11.8 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	9.90 hr		
DOWN-TIME	1.87 hr		
TOTAL SYSTEM PAUSE	1.25 hr		
NONAVAILABLE HOURS	0.0 hr		
START-UP	0.59 hr		
SHUT-DOWN	0.58 hr		
PLANT PERFORMANCE	84.1%		
PRODUCTIVITY	84.1%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,193		
NONPROCESS RECORDS (Test, calibration, etc)	11		
20-SEC PROCESS RECORDS	1,782		
TOTAL SORT	1 MD>0 & MND=0		
NO SORT	1,368 AD=0 & MD=0 & MND>0		
SOME SORT	413 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	1	UNEXPLAIN	PAUSE
AD>0 & MD	0	TIME	TIME
AD<0 & MD	1	07:39:28	05:44
ACT_P <5 kBq	134 32.6%	08:06:28	06:59

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 17,820
 2-SEC RECORDS WITH SORTS 411 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 89 84.8%
 3 DETECTORS 13 12.4%
 4 DETECTORS 2 1.9%
 5 DETECTORS 1 1.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 105
 NET 2-SEC RECORDS WITH SORTS 306
 2-SEC PERIODS WITH NO SORTS 17,514
 AVG TIME BETWEEN 2-SEC SORTS 116.5 sec

1-GATE SORTS		210	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	1	0.5%	-14000	1	-261	4000	78	19.0%	4
2	17	8.1%	-12000	4	-224	8000	161	39.2%	8
3	32	15.2%	-10000	7	-187	12000	66	16.1%	12
4	45	21.4%	-8000	13	-149	16000	32	7.8%	16
5	39	18.6%	-6000	38	-112	20000	18	4.4%	20
6	34	16.2%	-4000	113	-75	24000	17	4.1%	24
7	29	13.8%	-2000	326	-37	28000	7	1.7%	28
8	13	6.2%	0	415	0	32000	3	0.7%	32
TOTAL	210		2000	425	37	36000	1	0.2%	36
			4000	237	75	40000	4	1.0%	40
2-GATE SORTS		201	6000	128	112	44000	4	1.0%	44
DETECTR	SORTS	FREQ%	8000	50	149	48000	2	0.5%	48
8			10000	25	187	52000	2	0.5%	52
9	7	3.5%	12000	9	224	56000	6	1.5%	56
10	26	12.9%	14000	2	261	60000	2	0.5%	60
11	34	16.9%	16000	0	299	64000	0	0.0%	64
12	51	25.4%	18000	0	336	68000	2	0.5%	68
13	35	17.4%	20000	0	373	72000	0	0.0%	72
14	28	13.9%	22000	0	410	76000	1	0.2%	76
15	20	10.0%	24000	0	448	80000	0	0.0%	80
TOTAL	201		26000	0	485	84000	0	0.0%	84
			>28000	0	0	>84000	5	1.2%	>84
			TOTAL	1793		TOTAL	411		

SUMMARY TOTALS

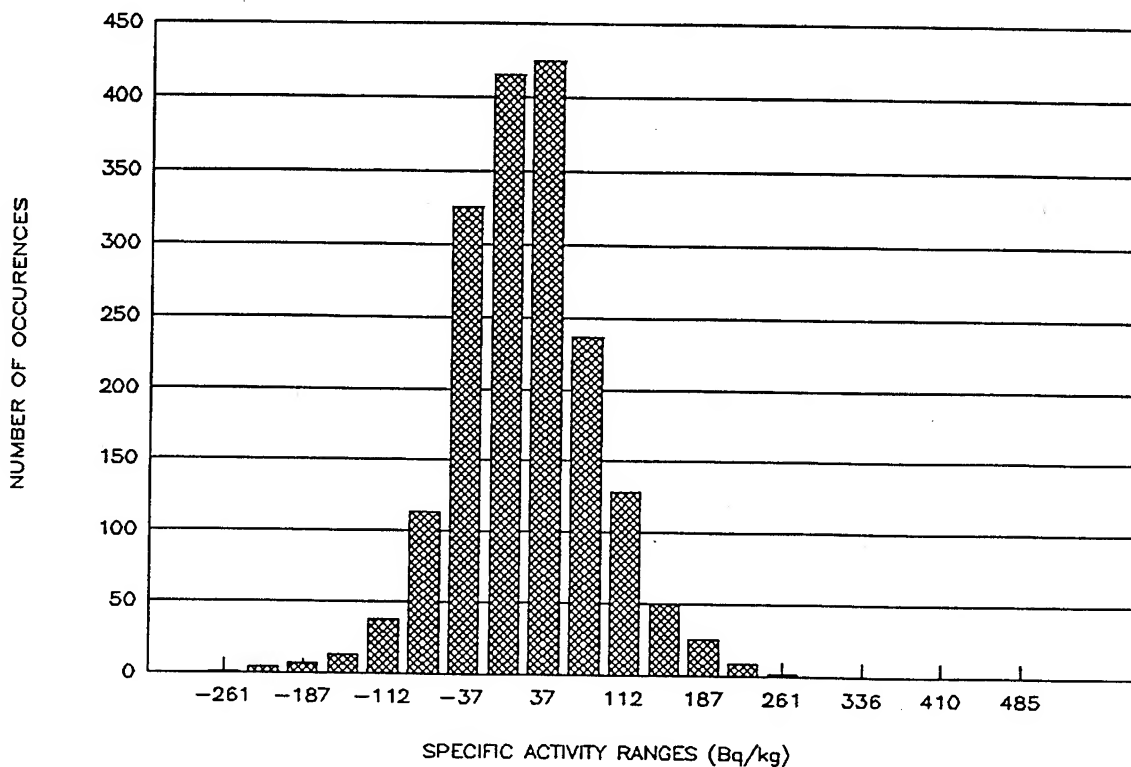
HOT PARTICLE EVENTS	415	SORTS BY ONE GATE ONLY	210
MULTIPARTICLE EVENTS	317	SORTS BY TWO GATES	201
DISTRIBUTED EVENTS	83		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 01-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 01-Apr-93

AVERAGE BACKGROUND COUNT RATE	0.79 ± 0.04 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		0.68 tons	93.7 tons
MAXIMUM/SORT		56.2 kg	53.6 kg
MINIMUM/SORT		0.7 kg	48.9 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			99.3%
EQUIVALENT SOIL-IN-GROUND	0.54 yd ³	74.3 yd ³	74.9 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	5,437 kBq		
MAXIMUM/SORT	364 kBq		
MINIMUM/SORT	2.6 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	3,025 kBq	(2,919)kBq	
MAXIMUM/SORT	272 kBq	14 kBq	
MINIMUM/SORT	-8239 Bq	-19 kBq	
SPECIFIC ACTIVITY	4,426 Bq/kg	(31)Bq/kg	
WORK HISTORY			
WORK DAY START	05:44 AM	WORK DAY END	05:30 PM
PLANT START-UP	05:44 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:19 AM	END SOIL PROCESSING	04:52 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS		11.8 hr	
AVAILABLE HOURS		11.8 hr	
ACTUAL PROCESS HOURS (total 20-sec records)		9.79 hr	
DOWN-TIME		1.98 hr	
TOTAL SYSTEM PAUSE		1.28 hr	
NONAVAILABLE HOURS		0.0 hr	
START-UP		0.59 hr	
SHUT-DOWN		0.62 hr	
PLANT PERFORMANCE		83.2%	
PRODUCTIVITY		83.2%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)		2,133	
NONPROCESS RECORDS (Test, calibration, etc)		26	
20-SEC PROCESS RECORDS		1,762	
TOTAL SORT		1 MD>0 & MND=0	
NO SORT		1,202 AD=0 & MD=0 & MND>0	
SOME SORT		559 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS		0	
0<AD<1kBq & MD>0	0		UNEXPLAIN PAUSE
AD=0 & MD	0		TIME TIME
AD<0 & MD	1		07:39:28 05:44
ACT_P <5 kBq	102 27.5%		06:57

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 17,620
 2-SEC RECORDS WITH SORTS 371 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	67	84.8%
3 DETECTORS	11	13.9%
4 DETECTORS	1	1.3%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	79	

NET 2-SEC RECORDS WITH SORTS 292
 2-SEC PERIODS WITH NO SORTS 17,328
 AVG TIME BETWEEN 2-SEC SORTS 120.7 sec

1-GATE SORTS	187	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	4	2.1%	-14000	12	-261	4000	41	11.1%
2	21	11.2%	-12000	7	-224	8000	178	48.0%
3	40	21.4%	-10000	16	-187	12000	56	15.1%
4	41	21.9%	-8000	49	-149	16000	28	7.5%
5	34	18.2%	-6000	111	-112	20000	13	3.5%
6	23	12.3%	-4000	274	-75	24000	6	1.6%
7	21	11.2%	-2000	344	-37	28000	4	1.1%
8	3	1.6%	0	455	0	32000	6	1.6%
TOTAL	187		2000	272	37	36000	4	1.1%
			4000	149	75	40000	1	0.3%
2-GATE SORTS	184		6000	63	112	44000	5	1.3%
DETECTR	SORTS	FREQ%	8000	22	149	48000	9	2.4%
8			10000	11	187	52000	4	1.1%
9	12	6.5%	12000	2	224	56000	2	0.5%
10	27	14.7%	14000	1	261	60000	3	0.8%
11	44	23.9%	16000	0	299	64000	0	0.0%
12	36	19.6%	18000	0	336	68000	0	0.0%
13	32	17.4%	20000	0	373	72000	0	0.0%
14	26	14.1%	22000	0	410	76000	3	0.8%
15	7	3.8%	24000	0	448	80000	0	0.0%
TOTAL	184		26000	0	485	84000	1	0.3%
			>28000	0	0	>84000	7	1.9%
			TOTAL	1788		TOTAL	371	

SUMMARY TOTALS

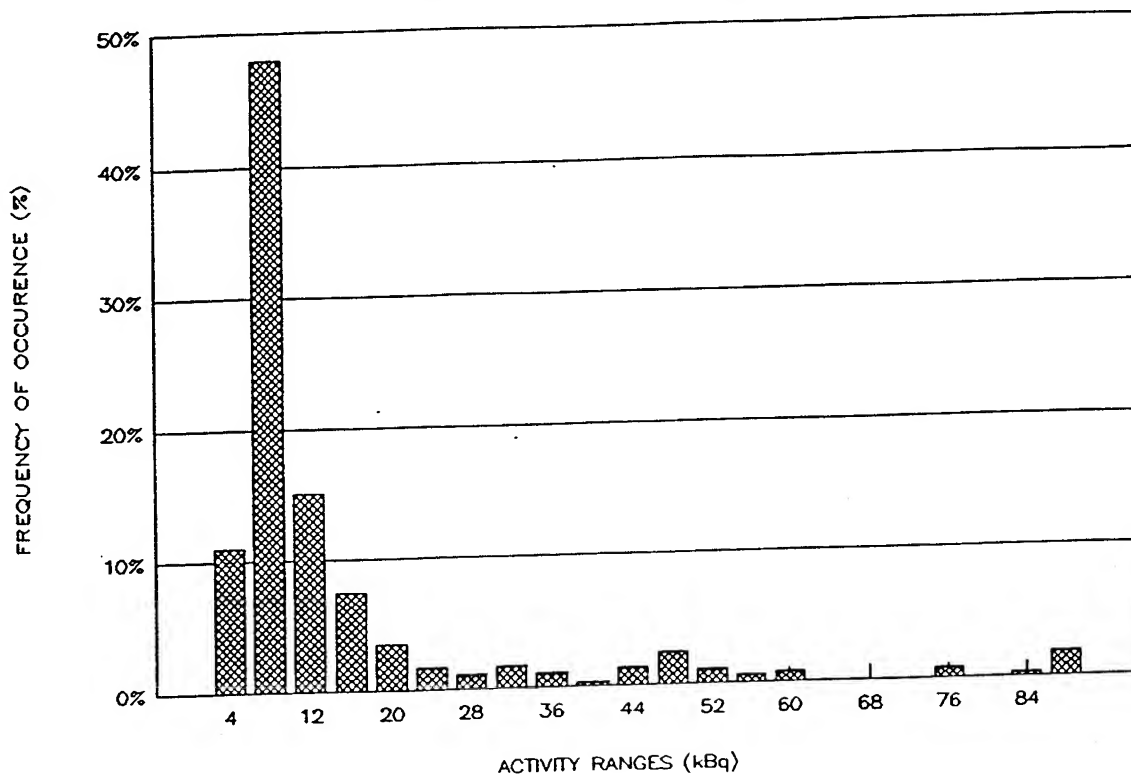
HOT PARTICLE EVENTS	389	SORTS BY ONE GATE ONLY	187
MULTIPARTICLE EVENTS	541	SORTS BY TWO GATES	184
DISTRIBUTED EVENTS	83		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

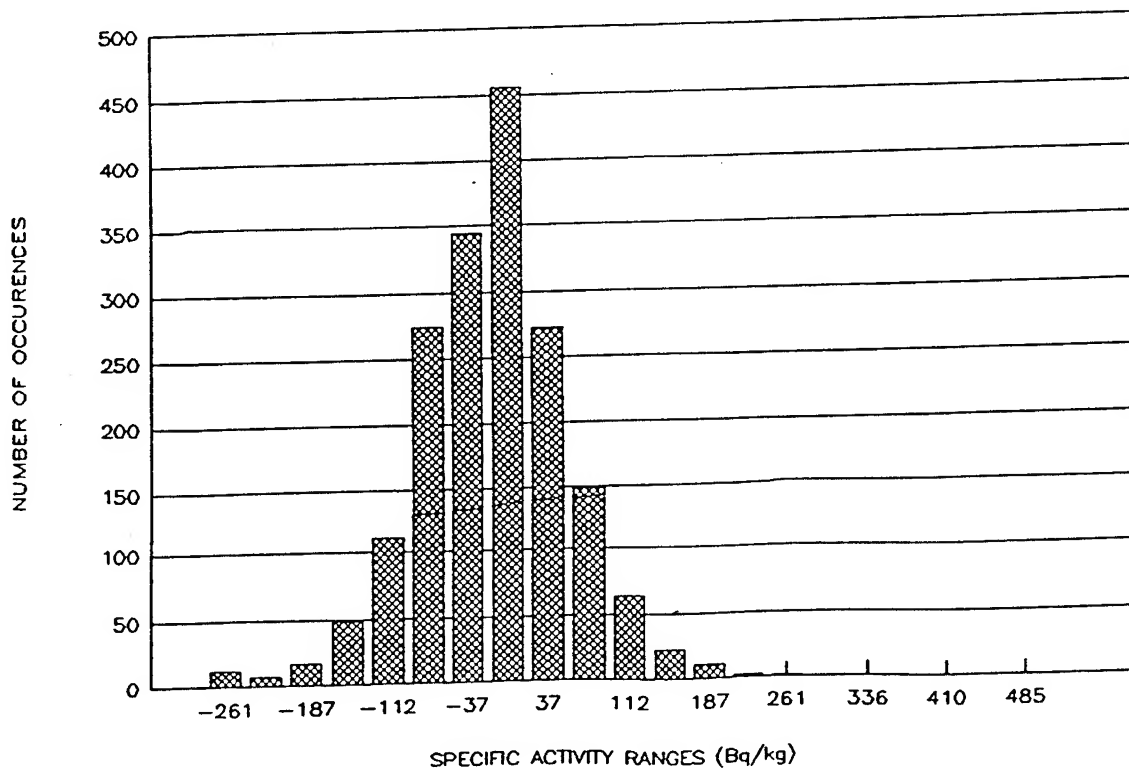
JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 01-Apr-93



CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 01-Apr-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 31-Mar-93

AVERAGE BACKGROUND COUNT RATE 0.70 ± 0.02 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	1.01 tons	99.1 tons
MAXIMUM/SORT	6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	47.5 kg

		99.0%
WEIGHT RECOVERY OR VOLUME RECOVERY		
EQUIVALENT SOIL-IN-GROUND	0.80 yd ³	78.6 yd ³ 79.4 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	14,635 kBq
MAXIMUM/SORT	1,310 kBq
MINIMUM/SORT	2.4 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	6,455 kBq	3,725 kBq
MAXIMUM/SORT	1024 kBq	14 kBq
MINIMUM/SORT	0 Bq	-8 kBq
SPECIFIC ACTIVITY	6,377 Bq/kg	38 Bq/kg

WORK HISTORY

WORK DAY START	05:54 AM	WORK DAY END	05:30 PM
PLANT START-UP	05:54 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:30 AM	END SOIL PROCESSING	05:05 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.6 hr
AVAILABLE HOURS	11.6 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.38 hr
DOWN-TIME	1.22 hr
TOTAL SYSTEM PAUSE	0.62 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.61 hr
SHUT-DOWN	0.41 hr
PLANT PERFORMANCE	89.5%
PRODUCTIVITY	89.5%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,821
NONPROCESS RECORDS (Test, calibration, etc)	37

20-SEC PROCESS RECORDS	1,869
TOTAL SORT	0 MD>0 & MND=0
NO SORT	1,155 AD=0 & MD=0 & MND>0
SOME SORT	714 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0

0<AD<1kBq & MD>0	5	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	07:52:11	05:54
ACT_P <5 kBq	319 33.5%	08:30:31	17:03

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	18,690	08:38:31
2-SEC RECORDS WITH SORTS	952 (ACT_P >0 kBq)	14:27:31
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		15:12:11
2 DETECTORS	216 82.1%	
3 DETECTORS	40 15.2%	
4 DETECTORS	6 2.3%	
5 DETECTORS	1 0.4%	
6 DETECTORS	0 0.0%	
7 DETECTORS	0 0.0%	
8 DETECTORS	0 0.0%	
TOTAL	263	
NET 2-SEC RECORDS WITH SORTS	689	
2-SEC PERIODS WITH NO SORTS	18,001	
AVG TIME BETWEEN 2-SEC SORTS	54.3 sec	

1-GATE SORTS	481	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	7	1.5%	-14000	0	-261	4000	146 15.3%
2	47	9.8%	-12000	2	-224	8000	414 43.5%
3	74	15.4%	-10000	10	-187	12000	140 14.7%
4	78	16.2%	-8000	13	-149	16000	65 6.8%
5	98	20.4%	-6000	14	-112	20000	39 4.1%
6	76	15.8%	-4000	66	-75	24000	29 3.0%
7	77	16.0%	-2000	149	-37	28000	26 2.7%
8	24	5.0%	0	309	0	32000	15 1.6%
TOTAL	481		2000	417	37	36000	14 1.5%
			4000	415	75	40000	5 0.5%
2-GATE SORTS	471	6000	296	112	44000	6 0.6%	44
DETECTR	SORTS	FREQ%	8000	145	149	48000	8 0.8%
8			10000	48	187	52000	5 0.5%
9	20	4.2%	12000	18	224	56000	5 0.5%
10	55	11.7%	14000	3	261	60000	7 0.7%
11	77	16.3%	16000	1	299	64000	6 0.6%
12	96	20.4%	18000	0	336	68000	1 0.1%
13	92	19.5%	20000	0	373	72000	2 0.2%
14	69	14.6%	22000	0	410	76000	3 0.3%
15	62	13.2%	24000	0	448	80000	1 0.1%
TOTAL	471		26000	0	485	84000	1 0.1%
			>28000	0	0	>84000	14 1.5%
			TOTAL	1906		TOTAL	952

SUMMARY TOTALS

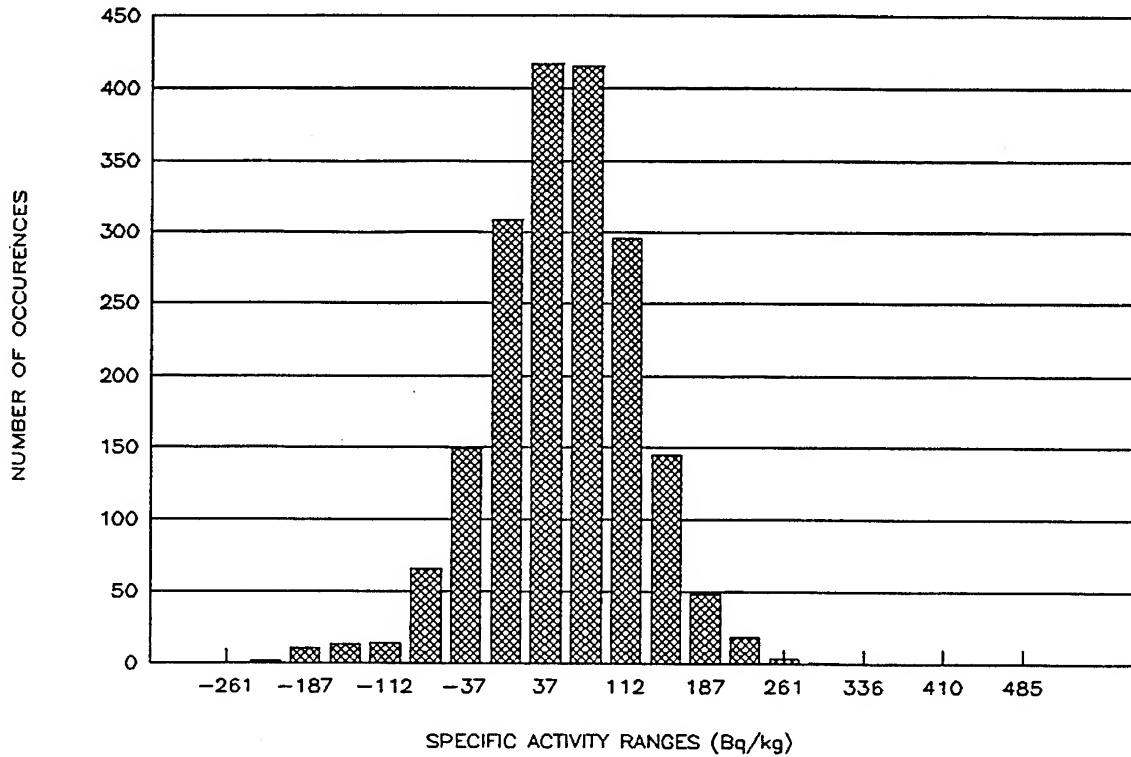
HOT PARTICLE EVENTS	940	SORTS BY ONE GATE ONLY	481
MULTIPARTICLE EVENTS	572	SORTS BY TWO GATES	471
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
2.00 Empty belt
3.00 Test (No process soil)

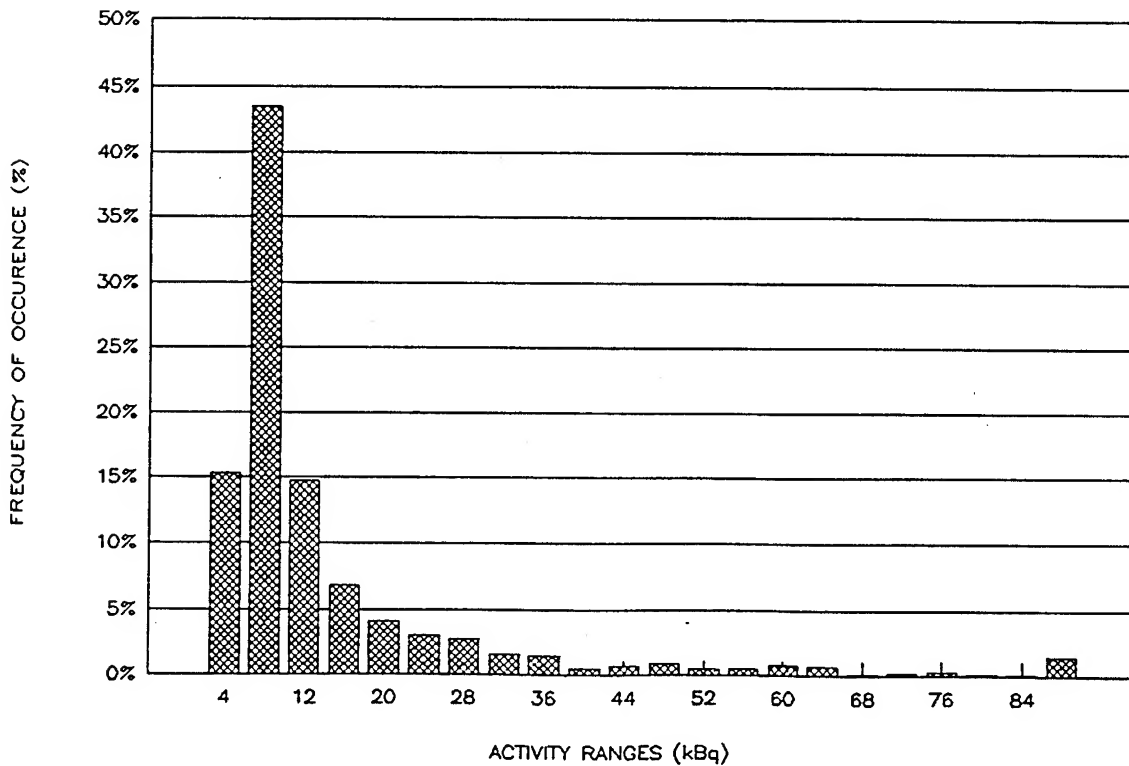
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 31-Mar-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 31-Mar-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 31-Mar-93

AVERAGE BACKGROUND COUNT RATE 0.78 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	1.78 tons	89.0 tons
MAXIMUM/SORT	56.2 kg	53.6 kg
MINIMUM/SORT	0.7 kg	47.5 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		98.0%
EQUIVALENT SOIL-IN-GROUND	1.41 yd³	70.5 yd³ 72.0 yd³/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	10,990 kBq
MAXIMUM/SORT	400 kBq
MINIMUM/SORT	2.7 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	6,623 kBq	7,992 kBq
MAXIMUM/SORT	307 kBq	15 kBq
MINIMUM/SORT	-17880 Bq	-6 kBq
SPECIFIC ACTIVITY	3,715 Bq/kg	90 Bq/kg

WORK HISTORY

WORK DAY START	05:54 AM	WORK DAY END	05:30 PM
PLANT START-UP	05:54 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:33 AM	END SOIL PROCESSING	05:02 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.6 hr
AVAILABLE HOURS	11.6 hr
ACTUAL PROCESS HOURS (total 20-sec records)	9.41 hr
DOWN-TIME	2.19 hr
TOTAL SYSTEM PAUSE	1.57 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.66 hr
SHUT-DOWN	0.45 hr
PLANT PERFORMANCE	81.1%
PRODUCTIVITY	81.1%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,481		
NONPROCESS RECORDS (Test, calibration, etc)	39		
20-SEC PROCESS RECORDS	1,694		
TOTAL SORT	4 MD>0 & MND=0		
NO SORT	581 AD=0 & MD=0 & MND>0		
SOME SORT	1,109 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	0	UNEXPLAIN	PAUSE
AD=0 & MD	2	TIME	TIME
AD<0 & MD	2	10:24:11	05:54
ACT_P <5 kBq	264 33.5%	10:39:55	09:39

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	16,940	10:43:40	10:34
2-SEC RECORDS WITH SORTS	787 (ACT_P >0 kBq)	10:50:51	10:38
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR			10:39
2 DETECTORS	170 87.6%		10:45
3 DETECTORS	23 11.9%		
4 DETECTORS	1 0.5%		
5 DETECTORS	0 0.0%		
6 DETECTORS	0 0.0%		
7 DETECTORS	0 0.0%		
8 DETECTORS	0 0.0%		
TOTAL	194		
NET 2-SEC RECORDS WITH SORTS	593		
2-SEC PERIODS WITH NO SORTS	16,347		
AVG TIME BETWEEN 2-SEC SORTS	57.1 sec		

1-GATE SORTS	399	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	10	2.5%	-14000	0	-261	4000	123	15.6%
2	60	15.0%	-12000	1	-224	8000	354	45.0%
3	73	18.3%	-10000	3	-187	12000	98	12.5%
4	79	19.8%	-8000	16	-149	16000	52	6.6%
5	90	22.6%	-6000	12	-112	20000	43	5.5%
6	32	8.0%	-4000	33	-75	24000	26	3.3%
7	43	10.8%	-2000	60	-37	28000	15	1.9%
8	12	3.0%	0	125	0	32000	16	2.0%
TOTAL	399		2000	192	37	36000	9	1.1%
			4000	302	75	40000	5	0.6%
2-GATE SORTS	388	6000	349	112	44000	5	0.6%	44
DETECTR	SORTS	FREQ%	8000	295	149	48000	3	0.4%
8			10000	183	187	52000	4	0.5%
9	23	5.9%	12000	120	224	56000	5	0.6%
10	52	13.4%	14000	34	261	60000	4	0.5%
11	67	17.3%	16000	8	299	64000	3	0.4%
12	88	22.7%	18000	0	336	68000	5	0.6%
13	80	20.6%	20000	0	373	72000	2	0.3%
14	52	13.4%	22000	0	410	76000	0	0.0%
15	26	6.7%	24000	0	448	80000	1	0.1%
TOTAL	388		26000	0	485	84000	1	0.1%
			>28000	0	0	>84000	13	1.7%
			TOTAL	1733		TOTAL	787	

SUMMARY TOTALS

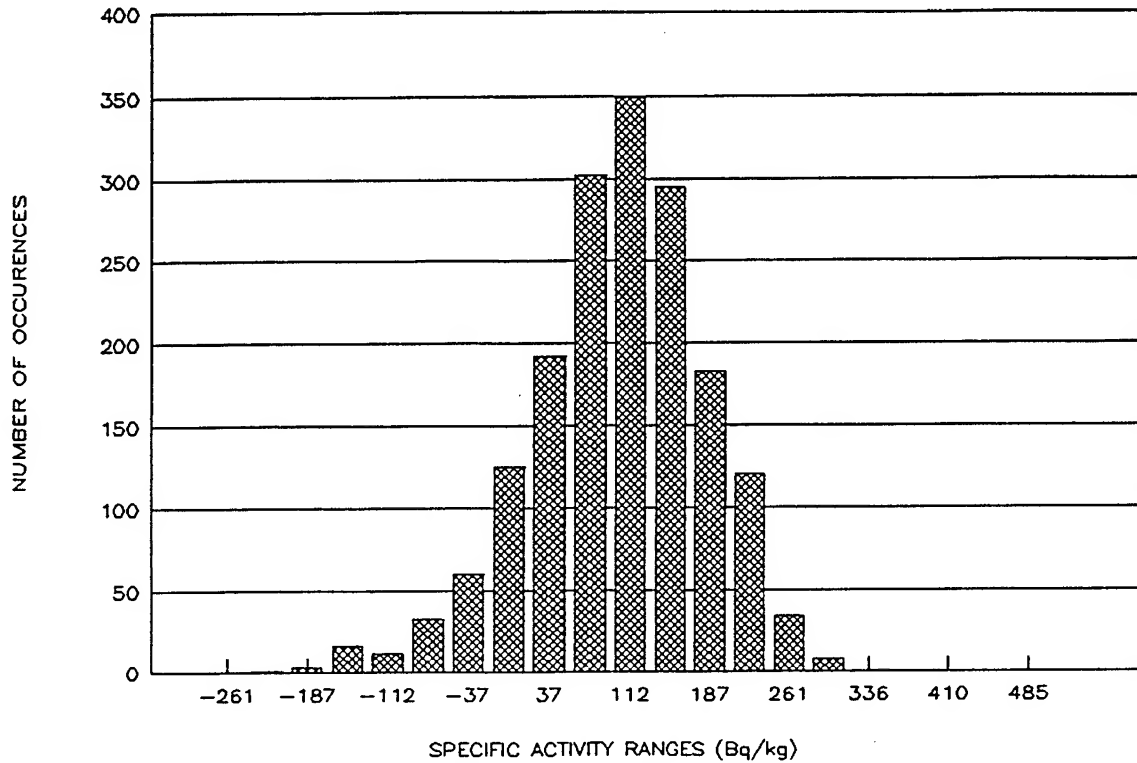
HOT PARTICLE EVENTS	802	SORTS BY ONE GATE ONLY	399
MULTIPARTICLE EVENTS	1524	SORTS BY TWO GATES	388
DISTRIBUTED EVENTS	332		

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

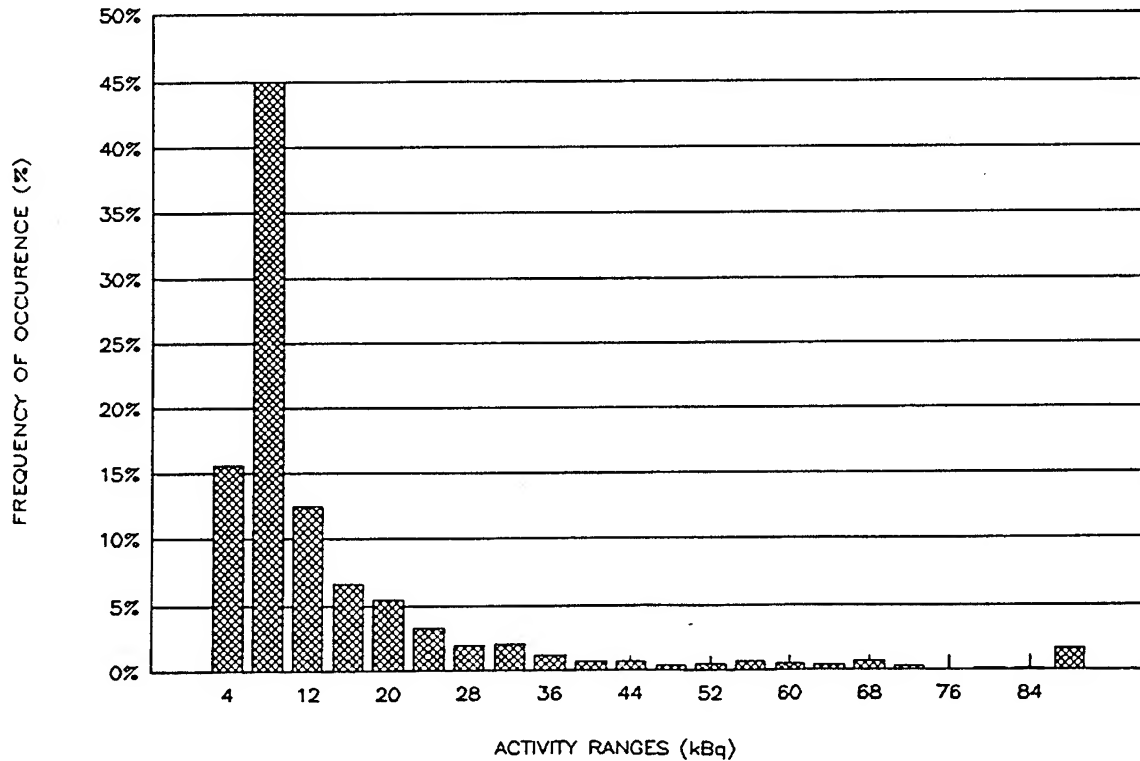
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 31-Mar-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 31-Mar-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 30-Mar-93

AVERAGE BACKGROUND COUNT RATE 0.70 ± 0.02 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN	
MASS TOTAL	1.03 tons	98.6 tons	
MAXIMUM/SORT	8.7 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	44.9 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.0%
EQUIVALENT SOIL-IN-GROUND	0.82 yd³	78.1 yd³	79.0 yd³/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	13,604 kBq
MAXIMUM/SORT	453 kBq
MINIMUM/SORT	2.4 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

	6,093 kBq	3,873 kBq
MAXIMUM/SORT	268 kBq	14 kBq
MINIMUM/SORT	0 Bq	-8 kBq
SPECIFIC ACTIVITY	5,895 Bq/kg	39 Bq/kg

WORK HISTORY

WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:33 AM	END SOIL PROCESSING	05:01 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.5 hr
AVAILABLE HOURS	11.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.33 hr
DOWN-TIME	1.17 hr
TOTAL SYSTEM PAUSE	0.55 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.56 hr
SHUT-DOWN	0.47 hr
PLANT PERFORMANCE	89.8%
PRODUCTIVITY	89.8%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)

NONPROCESS RECORDS (Test, calibration, etc)

20-SEC PROCESS RECORDS

TOTAL SORT	0 MD>0 & MND=0		
NO SORT	1,148 AD=0 & MD=0 & MND>0		
SOME SORT	711 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	0	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	None	06:00
ACT_P <5 kBq	308 32.3%		

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 18,590
 2-SEC RECORDS WITH SORTS 955 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 208 80.9%
 3 DETECTORS 41 16.0%
 4 DETECTORS 7 2.7%
 5 DETECTORS 1 0.4%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 257
 NET 2-SEC RECORDS WITH SORTS 698
 2-SEC PERIODS WITH NO SORTS 17,892
 AVG TIME BETWEEN 2-SEC SORTS 53.3 sec

1-GATE SORTS		483	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%		ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	6	1.2%	-14000	4	-261	4000	159	16.6%	4
2	33	6.8%	-12000	9	-224	8000	399	41.8%	8
3	61	12.6%	-10000	10	-187	12000	136	14.2%	12
4	100	20.7%	-8000	4	-149	16000	65	6.8%	16
5	112	23.2%	-6000	10	-112	20000	46	4.8%	20
6	73	15.1%	-4000	47	-75	24000	37	3.9%	24
7	73	15.1%	-2000	164	-37	28000	25	2.6%	28
8	25	5.2%	0	303	0	32000	15	1.6%	32
TOTAL	483		2000	403	37	36000	13	1.4%	36
			4000	420	75	40000	5	0.5%	40
2-GATE SORTS		472	6000	293	112	44000	5	0.5%	44
DETECTR	SORTS	FREQ%	8000	148	149	48000	4	0.4%	48
8			10000	53	187	52000	5	0.5%	52
9	14	3.0%	12000	16	224	56000	7	0.7%	56
10	54	11.4%	14000	4	261	60000	5	0.5%	60
11	76	16.1%	16000	3	299	64000	4	0.4%	64
12	96	20.3%	18000	0	336	68000	4	0.4%	68
13	102	21.6%	20000	0	373	72000	2	0.2%	72
14	68	14.4%	22000	0	410	76000	0	0.0%	76
15	62	13.1%	24000	0	448	80000	1	0.1%	80
TOTAL	472		26000	0	485	84000	2	0.2%	84
			>28000	0	0	>84000	16	1.7%	>84
			TOTAL	1891		TOTAL	955		

SUMMARY TOTALS

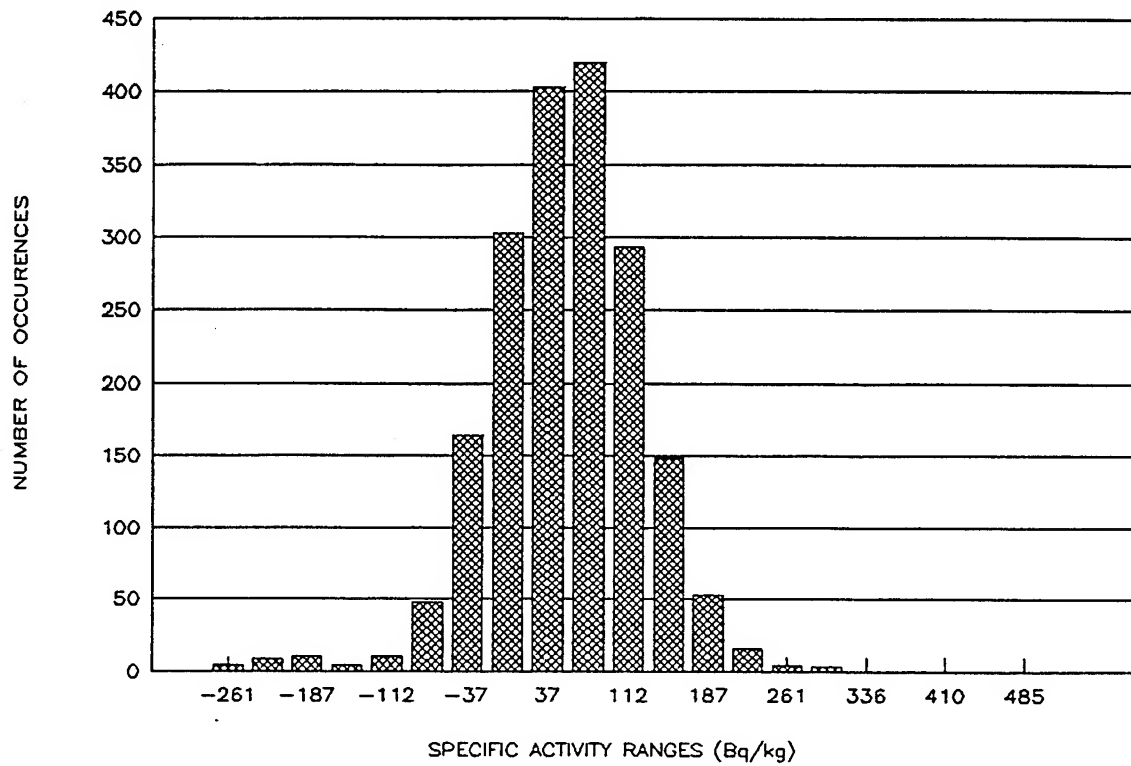
HOT PARTICLE EVENTS	950	SORTS BY ONE GATE ONLY	483
MULTIPARTICLE EVENTS	595	SORTS BY TWO GATES	472
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

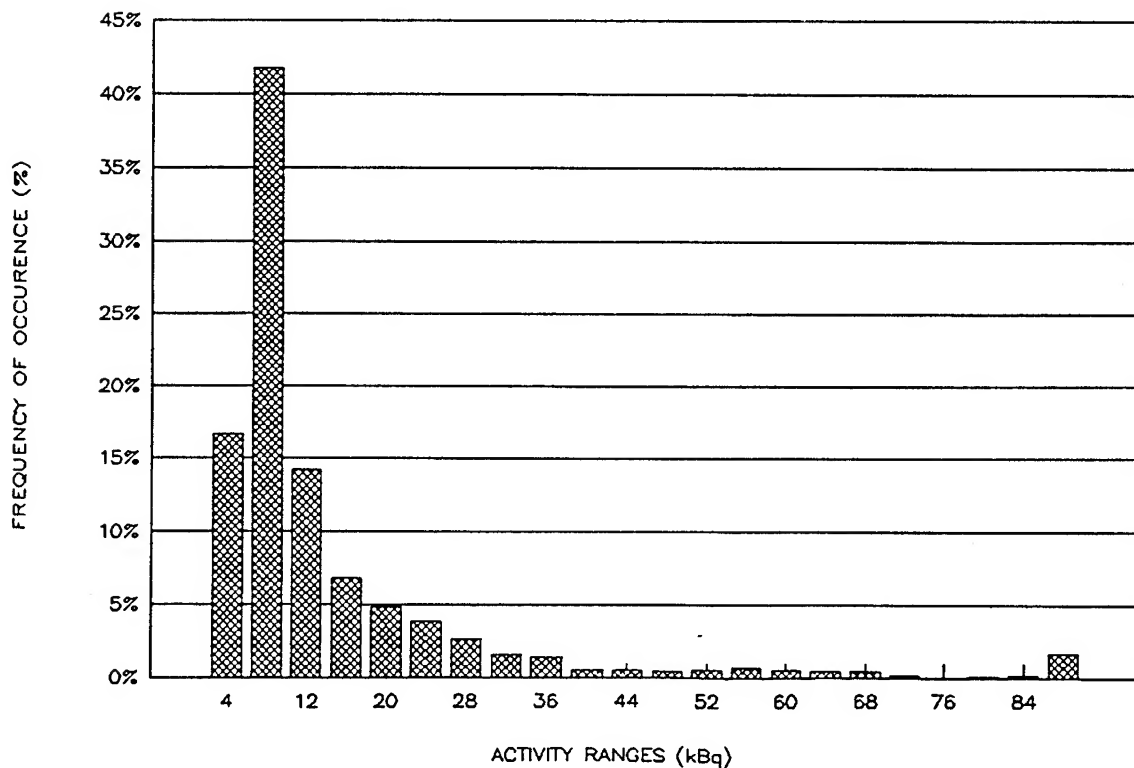
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 30-Mar-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 30-Mar-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 30-Mar-93

AVERAGE BACKGROUND COUNT RATE

0.79 ± 0.03 c/sec

SORTER SOIL DENSITY

1.15 tons/m³

GROUND SOIL DENSITY

1.65 tons/m³

MASS TOTAL

CONTAMINATED

CLEAN

MAXIMUM/SORT

1.31 tons

98.9 tons

MINIMUM/SORT

53.6 kg

53.6 kg

0.7 kg

46.9 kg

WEIGHT RECOVERY OR VOLUME RECOVERY

98.7%

EQUIVALENT SOIL-IN-GROUND

1.04 yd³

78.4 yd³

79.5 yd³/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL

13,325 kBq

MAXIMUM/SORT

290 kBq

MINIMUM/SORT

2.7 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

6,984 kBq

8,534 kBq

MAXIMUM/SORT

226 kBq

18 kBq

MINIMUM/SORT

0 Bq

-12 kBq

SPECIFIC ACTIVITY

5,330 Bq/kg

86 Bq/kg

WORK HISTORY

WORK DAY START

06:00 AM

WORK DAY END

05:30 PM

PLANT START-UP

06:00 AM

PLANT SHUT-DOWN

05:30 PM

START SOIL PROCESSING

06:33 AM

END SOIL PROCESSING

05:02 PM

LUNCH START

11:30 AM

LUNCH PERIOD

0.0 hr

WORK HOURS

11.5 hr

AVAILABLE HOURS

11.5 hr

ACTUAL PROCESS HOURS (total 20-sec records)

10.39 hr

DOWN-TIME

1.11 hr

TOTAL SYSTEM PAUSE

0.55 hr

NONAVAILABLE HOURS

0.0 hr

START-UP

0.56 hr

SHUT-DOWN

0.45 hr

PLANT PERFORMANCE

90.4%

PRODUCTIVITY

90.4%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)

2,740

NONPROCESS RECORDS (Test, calibration, etc)

20

20-SEC PROCESS RECORDS

1,871

TOTAL SORT

1 MD>0 & MND=0

NO SORT

978 AD=0 & MD=0 & MND>0

SOME SORT

892 AD>0&0<MD<MNDmax&MND<MNDmax

UNEXPLAINED RECORDS

0

0<AD<1kBq & MD>0

1

UNEXPLAIN

PAUSE

AD=0 & MD

0

TIME

TIME

AD<0 & MD

0

12:53:03

06:00

ACT_P <5 kBq

230

26.5%

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 18,710
 2-SEC RECORDS WITH SORTS 869 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 190 83.7%
 3 DETECTORS 29 12.8%
 4 DETECTORS 6 2.6%
 5 DETECTORS 2 0.9%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 227
 NET 2-SEC RECORDS WITH SORTS 642
 2-SEC PERIODS WITH NO SORTS 18,068
 AVG TIME BETWEEN 2-SEC SORTS 58.3 sec

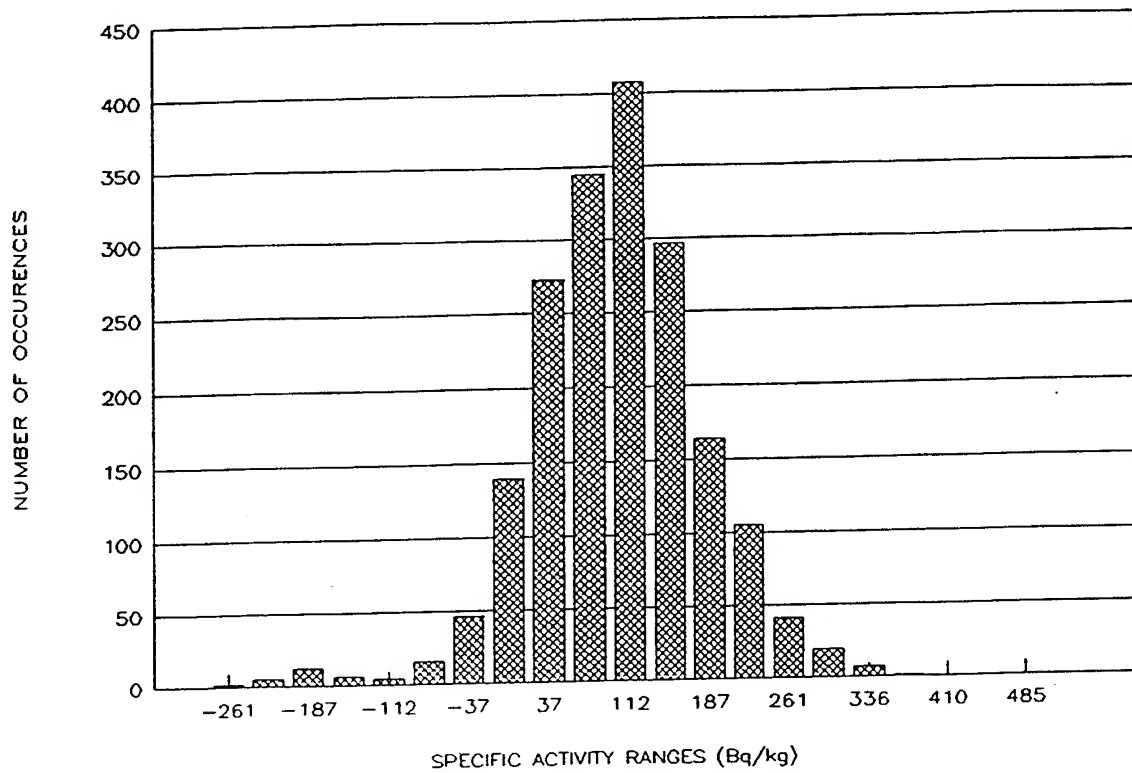
1-GATE SORTS DETECTR	SORTS	450 FREQ%	ACT_ND (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT FREQ%	ACT_P (kBq)
1	15	3.3%	-14000	2	-261	4000	101 11.6%	4
2	63	14.0%	-12000	5	-224	8000	376 43.3%	8
3	84	18.7%	-10000	12	-187	12000	136 15.7%	12
4	109	24.2%	-8000	6	-149	16000	76 8.7%	16
5	84	18.7%	-6000	4	-112	20000	37 4.3%	20
6	60	13.3%	-4000	16	-75	24000	35 4.0%	24
7	32	7.1%	-2000	46	-37	28000	14 1.6%	28
8	3	0.7%	0	140	0	32000	13 1.5%	32
TOTAL	450		2000	273	37	36000	15 1.7%	36
			4000	345	75	40000	4 0.5%	40
			6000	408	112	44000	7 0.8%	44
2-GATE SORTS		419	8000	297	149	48000	5 0.6%	48
DETECTR	SORTS	FREQ%	10000	164	187	52000	8 0.9%	52
8			12000	105	224	56000	4 0.5%	56
9	35	8.4%	14000	41	261	60000	6 0.7%	60
10	60	14.3%	16000	19	299	64000	3 0.3%	64
11	94	22.4%	18000	7	336	68000	1 0.1%	68
12	100	23.9%	20000	1	373	72000	2 0.2%	72
13	69	16.5%	22000	0	410	76000	2 0.2%	76
14	50	11.9%	24000	0	448	80000	0 0.0%	80
15	11	2.6%	26000	0	485	84000	0 0.0%	84
TOTAL	419		>28000	0	0	>84000	24 2.8%	>84
			TOTAL	1891		TOTAL	869	
SUMMARY TOTALS								
HOT PARTICLE EVENTS			863	SORTS BY ONE GATE ONLY			450	
MULTIPARTICLE EVENTS			1015	SORTS BY TWO GATES			419	
DISTRIBUTED EVENTS			76					

REC CODE EXPLANATION

- 1.00 Source check (soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

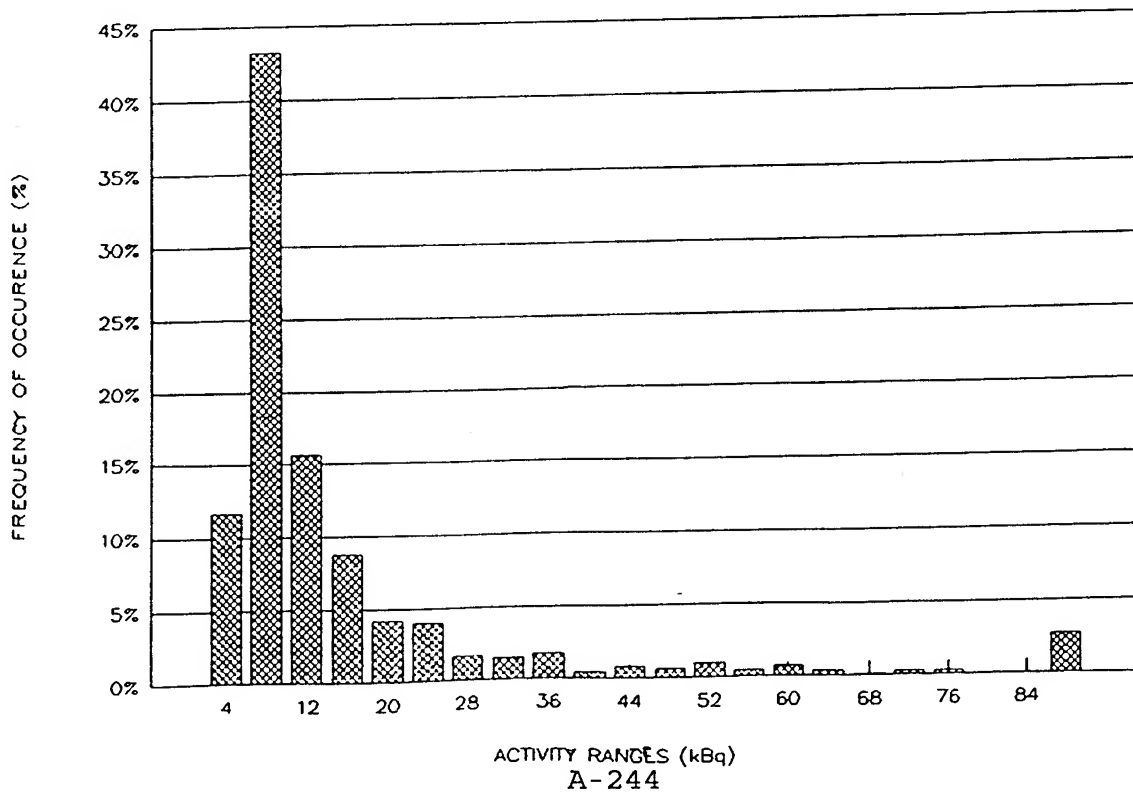
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 30-Mar-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 30-Mar-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 29-Mar-93

AVERAGE BACKGROUND COUNT RATE 0.71 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN	
MASS TOTAL	1.61 tons	85.3 tons	
MAXIMUM/SORT	56.2 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	42.8 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			98.1%
EQUIVALENT SOIL-IN-GROUND	1.28 yd³	67.6 yd³	68.9 yd³/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	12,988 kBq
MAXIMUM/SORT	1,119 kBq
MINIMUM/SORT	2.3 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	6,109 kBq	1,426 kBq
MAXIMUM/SORT	978 kBq	18 kBq
MINIMUM/SORT	-641 Bq	-13 kBq
SPECIFIC ACTIVITY	3,794 Bq/kg	17 Bq/kg

WORK HISTORY

WORK DAY START	05:49 AM	WORK DAY END	05:30 PM
PLANT START-UP	05:49 AM	PLANT SHUT-DOWN	05:04 PM
START SOIL PROCESSING	06:22 AM	END SOIL PROCESSING	05:02 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr

WORK HOURS	11.2 hr
AVAILABLE HOURS	10.8 hr
ACTUAL PROCESS HOURS (total 20-sec records)	9.01 hr
DOWN-TIME	1.74 hr
TOTAL SYSTEM PAUSE	2.08 hr
NONAVAILABLE HOURS	0.4 hr
START-UP	0.55 hr
SHUT-DOWN	0.02 hr
PLANT PERFORMANCE	83.8%
PRODUCTIVITY	80.6%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 2,483

NONPROCESS RECORDS (Test, calibration, etc) 35

20-SEC PROCESS RECORDS

TOTAL SORT	1,622
NO SORT	14 MD>0 & MND=0
SOME SORT	1,114 AD=0 & MD=0 & MND>0
UNEXPLAINED RECORDS	494 AD>0&0<MD<MNDmax&MND<MNDmax
	0

		UNEXPLAIN	PAUSE
		TIME	TIME
0<AD<1kBq & MD>0	1	12:47:40	05:50
AD=0 & MD	0		
AD<0 & MD	1	16:12:40	10:13
ACT_P <5 kBq	249 28.9%		

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	16,220	10:24
2-SEC RECORDS WITH SORTS	861 (ACT_P >0 kBq)	10:39
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		10:58
2 DETECTORS	209 84.6%	
3 DETECTORS	33 13.4%	
4 DETECTORS	4 1.6%	
5 DETECTORS	1 0.4%	
6 DETECTORS	0 0.0%	
7 DETECTORS	0 0.0%	
8 DETECTORS	0 0.0%	
TOTAL	247	
NET 2-SEC RECORDS WITH SORTS	614	
2-SEC PERIODS WITH NO SORTS	15,606	
AVG TIME BETWEEN 2-SEC SORTS	52.8 sec	

1-GATE SORTS	429	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P	
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)	
1	5	1.2%	-14000	0	-261	4000	117	13.6%	4
2	20	4.7%	-12000	1	-224	8000	372	43.2%	8
3	45	10.5%	-10000	4	-187	12000	139	16.1%	12
4	86	20.0%	-8000	8	-149	16000	60	7.0%	16
5	100	23.3%	-6000	23	-112	20000	41	4.8%	20
6	82	19.1%	-4000	103	-75	24000	22	2.6%	24
7	71	16.6%	-2000	216	-37	28000	20	2.3%	28
8	20	4.7%	0	400	0	32000	21	2.4%	32
TOTAL	429		2000	400	37	36000	8	0.9%	36
			4000	228	75	40000	12	1.4%	40
			6000	114	112	44000	6	0.7%	44
2-GATE SORTS	432		8000	62	149	48000	5	0.6%	48
DETECTR	SORTS	FREQ%	10000	34	187	52000	4	0.5%	52
8			12000	20	224	56000	9	1.0%	56
9	11	2.5%	14000	18	261	60000	4	0.5%	60
10	33	7.6%	16000	16	299	64000	2	0.2%	64
11	71	16.4%	18000	10	336	68000	2	0.2%	68
12	89	20.6%	20000	0	373	72000	0	0.0%	72
13	100	23.1%	22000	0	410	76000	3	0.3%	76
14	77	17.8%	24000	0	448	80000	1	0.1%	80
15	51	11.8%	26000	0	485	84000	3	0.3%	84
TOTAL	432		>28000	0	0	>84000	10	1.2%	>84
			TOTAL	1657		TOTAL	861		

SUMMARY TOTALS

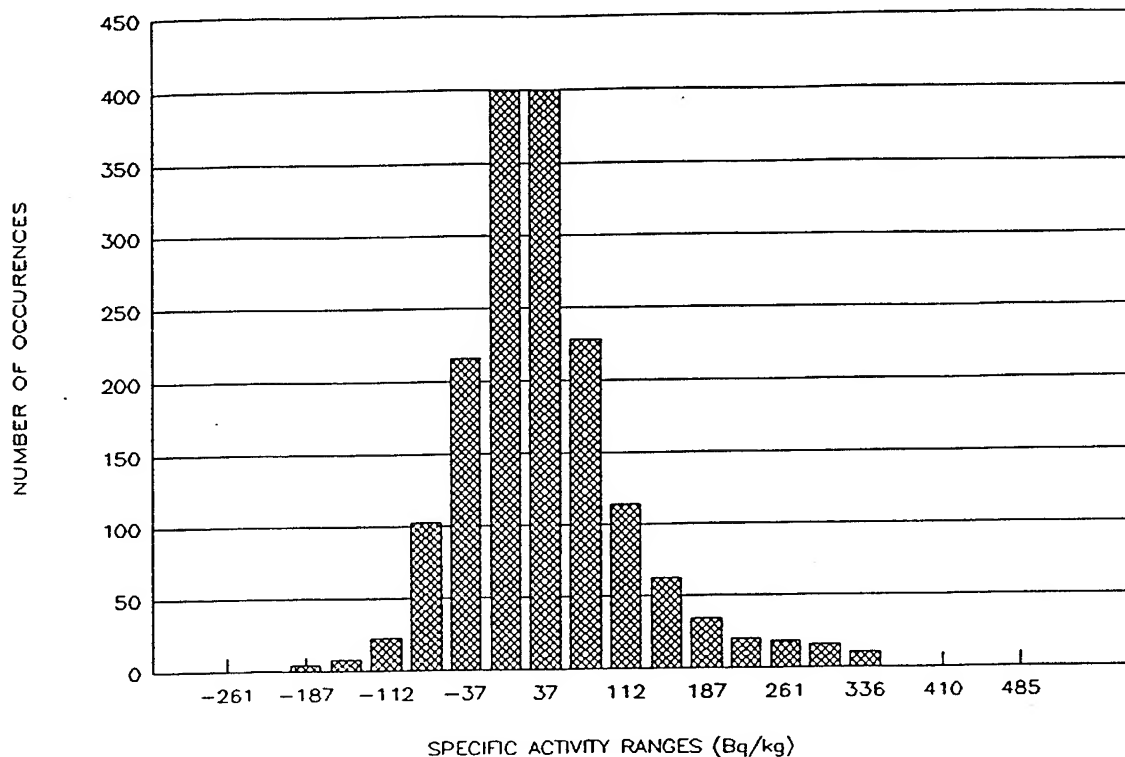
HOT PARTICLE EVENTS	840	SORTS BY ONE GATE ONLY	429
MULTIPARTICLE EVENTS	507	SORTS BY TWO GATES	432
DISTRIBUTED EVENTS	1056		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

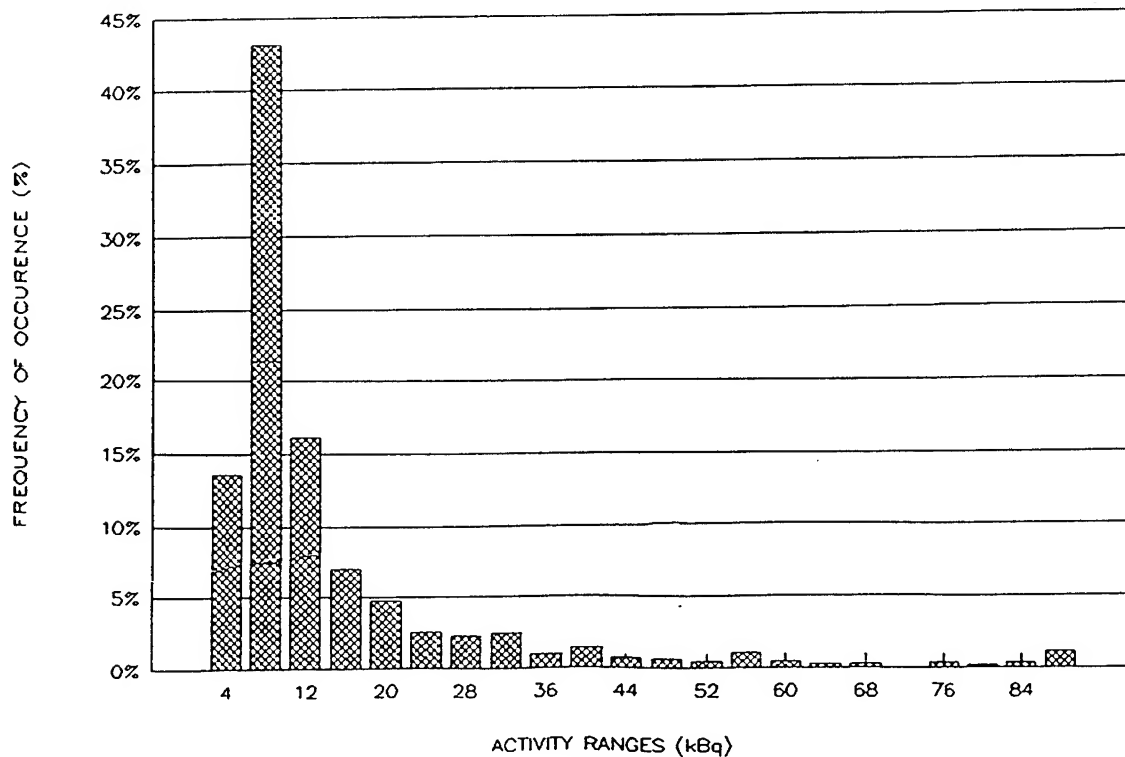
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 29-Mar-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 29-Mar-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 29-Mar-93

AVERAGE BACKGROUND COUNT RATE	0.79 ± 0.04 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		2.32 tons	74.3 tons
MAXIMUM/SORT		56.2 kg	53.6 kg
MINIMUM/SORT		0.7 kg	41.5 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			97.0%
EQUIVALENT SOIL-IN-GROUND	1.84 yd ³	58.9 yd ³	60.8 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	23,059 kBq		
MAXIMUM/SORT	4,264 kBq		
MINIMUM/SORT	2.7 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	10,787 kBq	4,602 kBq	
MINIMUM/SORT	3501 kBq	20 kBq	
SPECIFIC ACTIVITY	0 Bq	-14 kBq	
	4,643 Bq/kg	62 Bq/kg	
WORK HISTORY			
WORK DAY START	05:49 AM	WORK DAY END	05:30 PM
PLANT START-UP	05:49 AM	PLANT SHUT-DOWN	05:04 PM
START SOIL PROCESSING	06:22 AM	END SOIL PROCESSING	05:03 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr
WORK HOURS		11.2 hr	
AVAILABLE HOURS		10.8 hr	
ACTUAL PROCESS HOURS (total 20-sec records)		7.94 hr	
DOWN-TIME		2.81 hr	
TOTAL SYSTEM PAUSE		3.11 hr	
NONAVAILABLE HOURS		0.4 hr	
START-UP		0.55 hr	
SHUT-DOWN		0.01 hr	
PLANT PERFORMANCE		73.9%	
PRODUCTIVITY		71.0%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)		2,168	
NONPROCESS RECORDS (Test, calibration, etc)		59	
20-SEC PROCESS RECORDS		1,430	
TOTAL SORT		27 MD>0 & MND=0	
NO SORT		834 AD=0 & MD=0 & MND>0	
SOME SORT		569 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS		0	
0<AD<1kBq & MD>0	0		UNEXPLAIN
AD=0 & MD	0		TIME
AD<0 & MD	0		None
ACT_P <5 kBq	204 27.6%		PAUSE
			TIME
			05:50
			10:13

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	14,300	10:24
2-SEC RECORDS WITH SORTS	738 (ACT_P >0 kBq)	10:29
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		10:34
2 DETECTORS	167 77.0%	10:35
3 DETECTORS	33 15.2%	10:41
4 DETECTORS	13 6.0%	10:44
5 DETECTORS	4 1.8%	12:07
6 DETECTORS	0 0.0%	12:08
7 DETECTORS	0 0.0%	12:53
8 DETECTORS	0 0.0%	12:59
TOTAL	217	13:00
NET 2-SEC RECORDS WITH SORTS	521	
2-SEC PERIODS WITH NO SORTS	13,779	
AVG TIME BETWEEN 2-SEC SORTS	54.9 sec	

1-GATE SORTS	377	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P	
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)	
1	13	3.4%	-14000	1	-261	4000	84	11.2%	4
2	55	14.3%	-12000	2	-224	8000	317	42.3%	8
3	99	25.8%	-10000	3	-187	12000	117	15.6%	12
4	89	23.2%	-8000	6	-149	16000	64	8.5%	16
5	74	19.3%	-6000	6	-112	20000	35	4.7%	20
6	32	8.3%	-4000	23	-75	24000	25	3.3%	24
7	18	4.7%	-2000	78	-37	28000	16	2.1%	28
8	4	1.0%	0	191	0	32000	12	1.6%	32
TOTAL	384		2000	294	37	36000	11	1.5%	36
			4000	315	75	40000	6	0.8%	40
2-GATE SORTS	361		6000	232	112	44000	4	0.5%	44
DETECTR	SORTS	FREQ%	8000	152	149	48000	5	0.7%	48
8			10000	76	187	52000	3	0.4%	52
9	28	7.7%	12000	34	224	56000	3	0.4%	56
10	71	19.5%	14000	29	261	60000	6	0.8%	60
11	97	26.6%	16000	21	299	64000	7	0.9%	64
12	84	23.0%	18000	9	336	68000	3	0.4%	68
13	54	14.8%	20000	6	373	72000	1	0.1%	72
14	22	6.0%	22000	0	410	76000	1	0.1%	76
15	9	2.5%	24000	0	448	80000	2	0.3%	80
TOTAL	365		26000	0	485	84000	1	0.1%	84
			>28000	0	0	>84000	26	3.5%	>84
			TOTAL	1478		TOTAL	749		

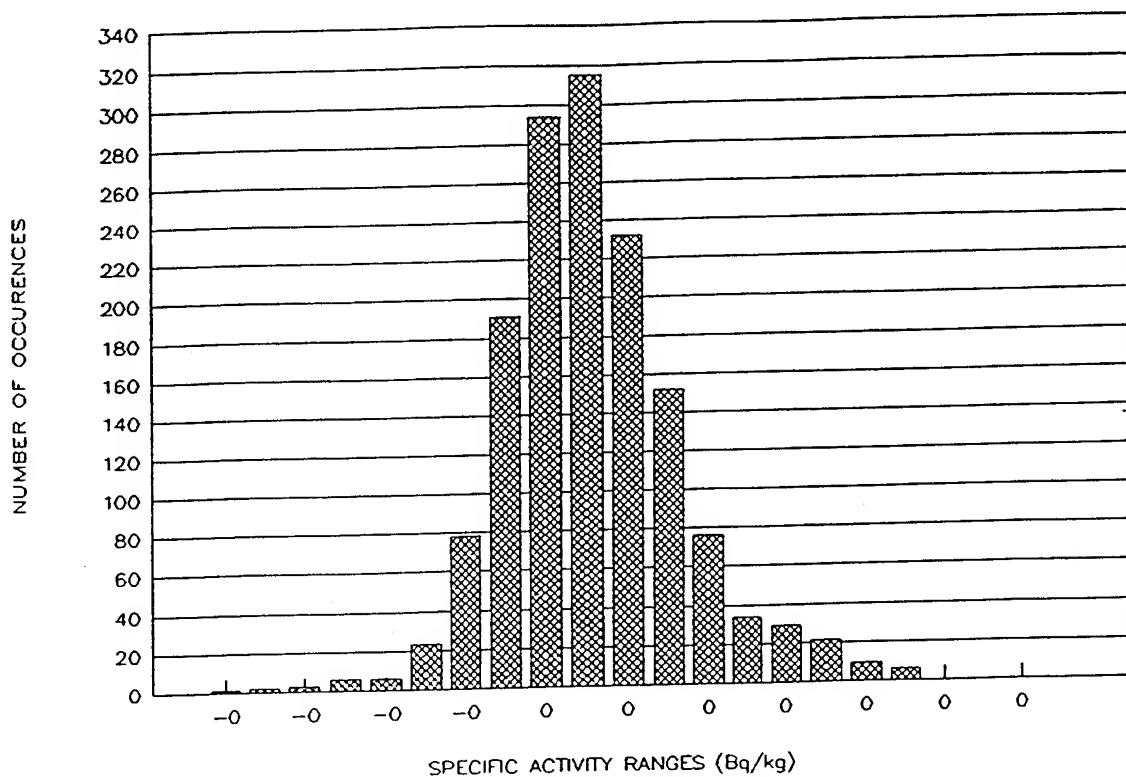
SUMMARY TOTALS

HOT PARTICLE EVENTS	692	SORTS BY ONE GATE ONLY	377
MULTIPARTICLE EVENTS	662	SORTS BY TWO GATES	361
DISTRIBUTED EVENTS	2108		

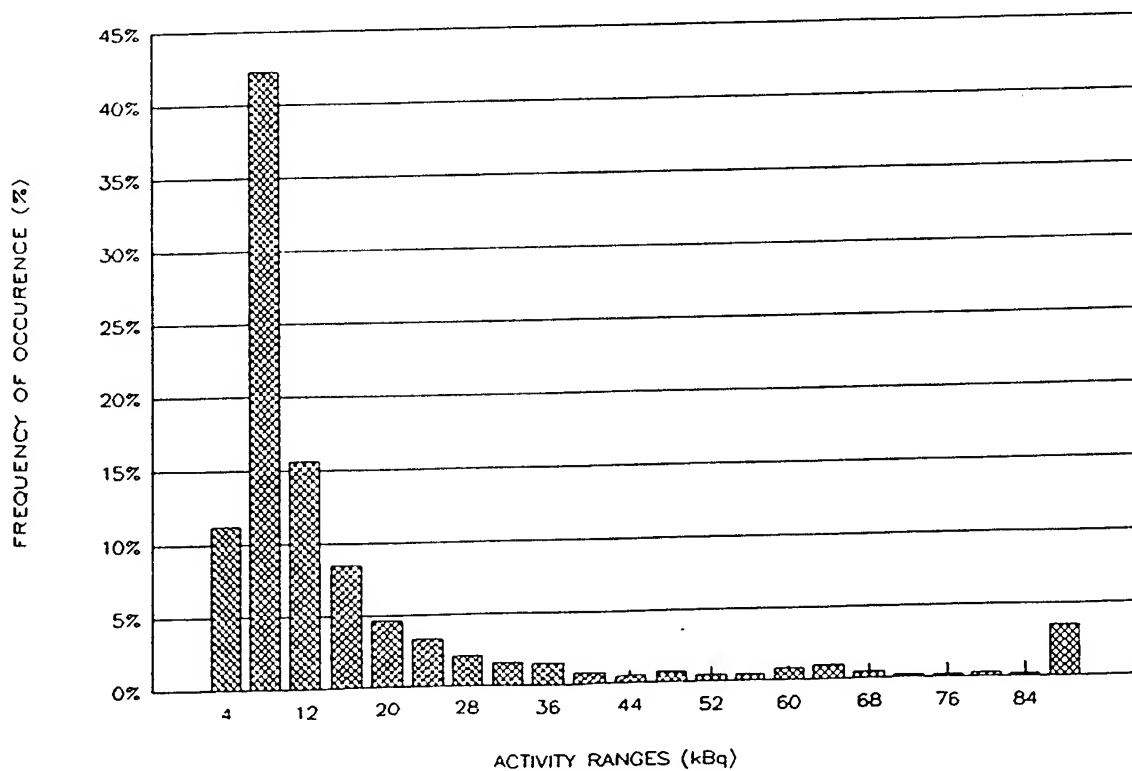
REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

SORTER 2 LOG DATA FOR 29-Mar-93



SORTER 2 LOG DATA FOR 29-Mar-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1

27-Mar-93

AVERAGE BACKGROUND COUNT RATE

0.70 ± 0.03 c/sec

SORTER SOIL DENSITY

1.15 tons/m³

GROUND SOIL DENSITY

1.65 tons/m³

MASS TOTAL

CONTAMINATED

CLEAN

MAXIMUM/SORT

1.68 tons

67.9 tons

MINIMUM/SORT

56.2 kg

53.6 kg

0.7 kg

48.9 kg

WEIGHT RECOVERY OR VOLUME RECOVERY

97.6%

EQUIVALENT SOIL-IN-GROUND

1.33 yd³

53.8 yd³

55.1 yd³/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL

11,500 kBq

MAXIMUM/SORT

307 kBq

MINIMUM/SORT

2.4 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

5,568 kBq

4,338 kBq

MAXIMUM/SORT

242 kBq

19 kBq

MINIMUM/SORT

0 Bq

-10 kBq

SPECIFIC ACTIVITY

3,311 Bq/kg

64 Bq/kg

WORK HISTORY

WORK DAY START

05:56 AM

WORK DAY END

05:30 PM

PLANT START-UP

05:56 AM

PLANT SHUT-DOWN

02:30 PM

START SOIL PROCESSING

06:40 AM

END SOIL PROCESSING

02:01 PM

LUNCH START

11:30 AM

LUNCH PERIOD

0.0 hr

WORK HOURS

11.6 hr

AVAILABLE HOURS

8.6 hr

ACTUAL PROCESS HOURS (total 20-sec records)

7.21 hr

DOWN-TIME

1.36 hr

TOTAL SYSTEM PAUSE

0.85 hr

NONAVAILABLE HOURS

3.0 hr

START-UP

0.74 hr

SHUT-DOWN

0.48 hr

PLANT PERFORMANCE

84.2%

PRODUCTIVITY

62.3%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)

2,081

NONPROCESS RECORDS (Test, calibration, etc)

12

20-SEC PROCESS RECORDS

1,298

TOTAL SORT

15 MD>0 & MND=0

NO SORT

705 AD=0 & MD=0 & MND>0

SOME SORT

578 AD>0&0<MD<MNDmax&MND<MNDmax

UNEXPLAINED RECORDS

0

0<AD<1kBq & MD>0

0

UNEXPLAIN

PAUSE

AD=0 & MD

0

TIME

TIME

AD<0 & MD

0

None

05:56

ACT_P <5 kBq

257

32.8%

06:47

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS

12,980

06:53

2-SEC RECORDS WITH SORTS

783 (ACT_P >0 kBq)

06:55

2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

06:56

2 DETECTORS	174	80.2%
3 DETECTORS	33	15.2%
4 DETECTORS	10	4.6%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%

TOTAL 217

NET 2-SEC RECORDS WITH SORTS

566

2-SEC PERIODS WITH NO SORTS

12,414

AVG TIME BETWEEN 2-SEC SORTS

45.9 sec

1-GATE SORTS	393	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	11	2.8%	-14000	0	-261	4000	138	17.6%
2	50	12.7%	-12000	0	-224	8000	285	36.4%
3	48	12.2%	-10000	4	-187	12000	143	18.3%
4	68	17.3%	-8000	1	-149	16000	64	8.2%
5	79	20.1%	-6000	7	-112	20000	25	3.2%
6	65	16.5%	-4000	20	-75	24000	20	2.6%
7	57	14.5%	-2000	72	-37	28000	23	2.9%
8	15	3.8%	0	166	0	32000	11	1.4%
TOTAL	393		2000	251	37	36000	5	0.6%
			4000	260	75	40000	11	1.4%
			6000	227	112	44000	5	0.6%
2-GATE SORTS	390		8000	140	149	48000	7	0.9%
DETECTR	SORTS	FREQ%	10000	84	187	52000	7	0.9%
8			12000	40	224	56000	6	0.8%
9	31	7.9%	14000	21	261	60000	3	0.4%
10	50	12.8%	16000	10	299	64000	2	0.3%
11	63	16.2%	18000	6	336	68000	4	0.5%
12	67	17.2%	20000	1	373	72000	1	0.1%
13	70	17.9%	22000	0	410	76000	1	0.1%
14	77	19.7%	24000	0	448	80000	2	0.3%
15	32	8.2%	26000	0	485	84000	2	0.3%
TOTAL	390		>28000	0	0	>84000	18	2.3%
			TOTAL	1310		TOTAL	783	

SUMMARY TOTALS

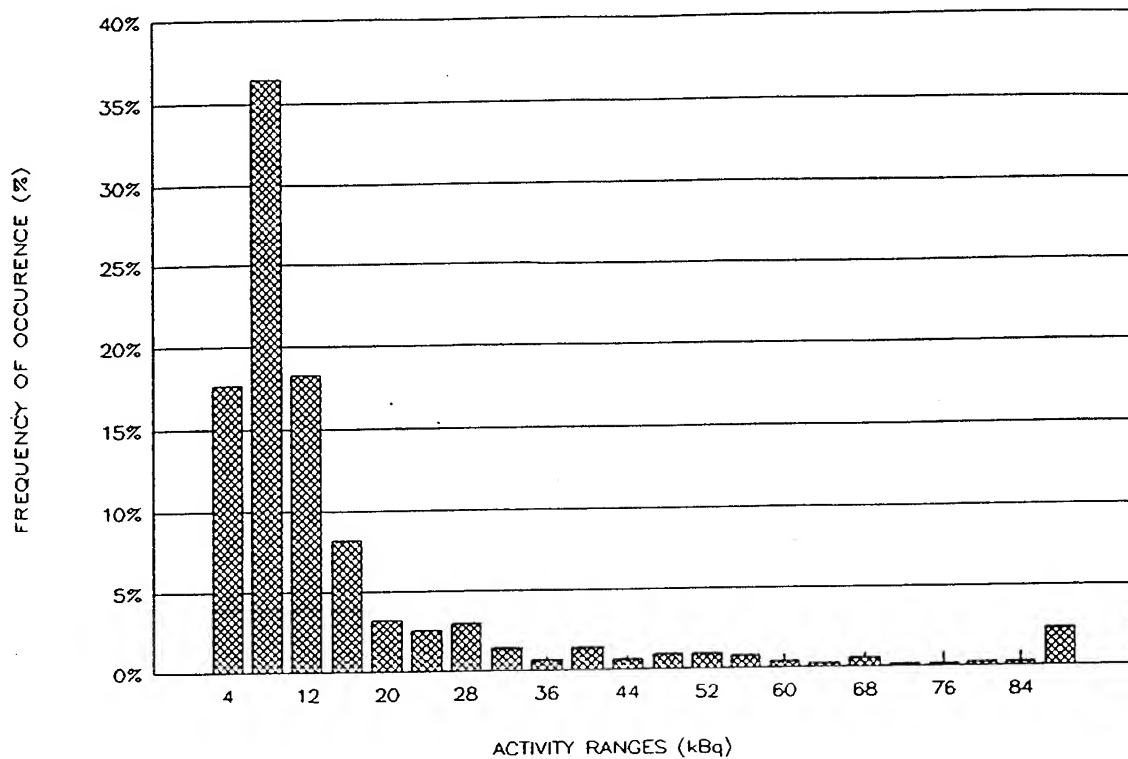
HOT PARTICLE EVENTS	790	SORTS BY ONE GATE ONLY	393
MULTIPARTICLE EVENTS	541	SORTS BY TWO GATES	390
DISTRIBUTED EVENTS	1180		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

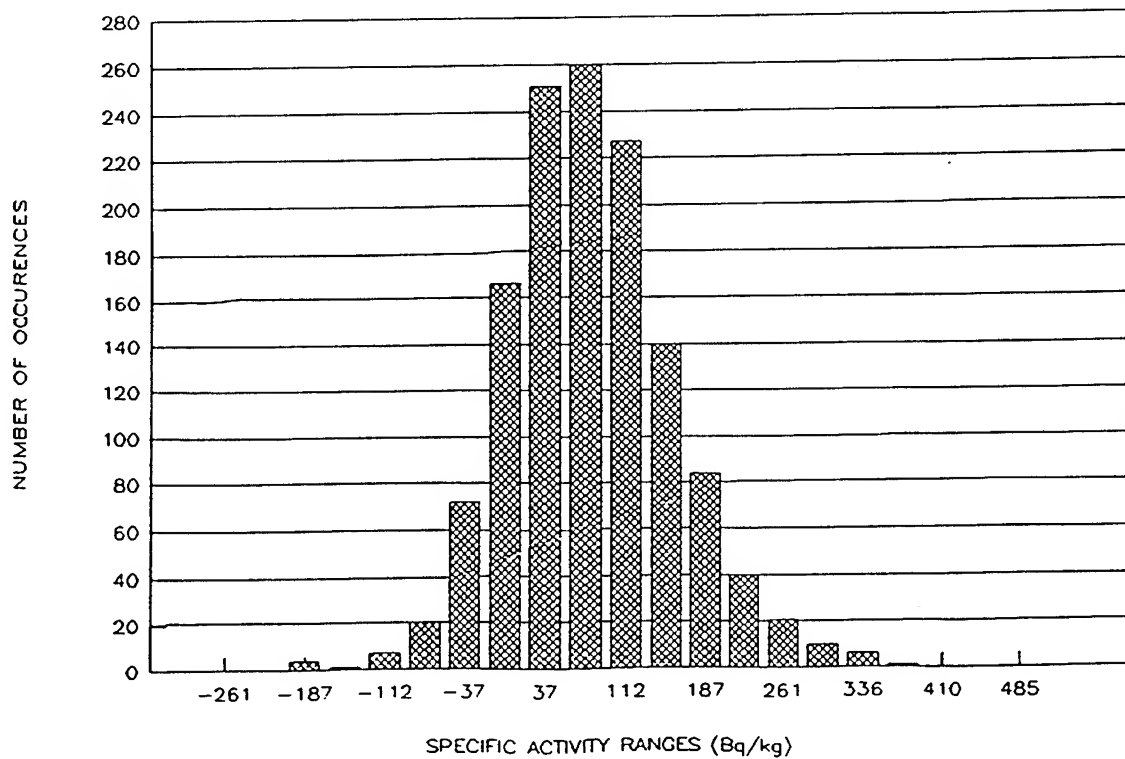
JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 27-Mar-93



CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 27-Mar-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 27-Mar-93

AVERAGE BACKGROUND COUNT RATE 0.76 ± 0.05 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	2.04 tons	67.9 tons
MAXIMUM/SORT	56.2 kg	53.6 kg
MINIMUM/SORT	0.7 kg	46.9 kg

		97.1%
WEIGHT RECOVERY OR VOLUME RECOVERY		
EQUIVALENT SOIL-IN-GROUND	1.62 yd³	53.8 yd³ 55.4 yd³/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	11,094 kBq
MAXIMUM/SORT	842 kBq
MINIMUM/SORT	2.2 kBq

	6,374 kBq	7,411 kBq
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY		
MAXIMUM/SORT	693 kBq	19 kBq
MINIMUM/SORT	0 Bq	-7 kBq
SPECIFIC ACTIVITY	3,123 Bq/kg	109 Bq/kg

WORK HISTORY

WORK DAY START	05:56 AM
PLANT START-UP	05:56 AM
START SOIL PROCESSING	06:39 AM
LUNCH START	11:30 AM

WORK DAY END	05:30 PM
PLANT SHUT-DOWN	02:30 PM
END SOIL PROCESSING	02:01 PM
LUNCH PERIOD	0.0 hr

WORK HOURS	11.6 hr
AVAILABLE HOURS	8.6 hr
ACTUAL PROCESS HOURS (total 20-sec records)	7.25 hr
DOWN-TIME	1.32 hr
TOTAL SYSTEM PAUSE	0.85 hr
NONAVAILABLE HOURS	3.0 hr
START-UP	0.72 hr
SHUT-DOWN	0.47 hr
PLANT PERFORMANCE	84.6%
PRODUCTIVITY	62.7%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 1,876

NONPROCESS RECORDS (Test, calibration, etc) 3

20-SEC PROCESS RECORDS

TOTAL SORT	23 MD>0 & MND=0
NO SORT	696 AD=0 & MD=0 & MND>0
SOME SORT	586 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	0
AD=0 & MD	0
AD<0 & MD	0
ACT_P <5 kBq	161 28.2%

UNEXPLAIN	PAUSE
TIME	TIME
None	05:56
	06:47

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS

13,050

06:55

2-SEC RECORDS WITH SORTS

571 (ACT_P >0 kBq)

06:56

2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	134	82.7%
3 DETECTORS	23	14.2%
4 DETECTORS	4	2.5%
5 DETECTORS	1	0.6%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%

TOTAL 162

NET 2-SEC RECORDS WITH SORTS

409

2-SEC PERIODS WITH NO SORTS

12,641

AVG TIME BETWEEN 2-SEC SORTS

63.8 sec

1-GATE SORTS	297	ACT_MD	NUMBER	SPEC_A	ACT_P	SORT FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)
1	11	3.7%	-14000	0	-261	4000	76 13.3%
2	42	14.1%	-12000	0	-224	8000	262 45.9%
3	48	16.2%	-10000	1	-187	12000	72 12.6%
4	66	22.2%	-8000	0	-149	16000	38 6.7%
5	62	20.9%	-6000	3	-112	20000	26 4.6%
6	43	14.5%	-4000	4	-75	24000	19 3.3%
7	21	7.1%	-2000	12	-37	28000	8 1.4%
8	4	1.3%	0	78	0	32000	14 2.5%
TOTAL	297		2000	147	37	36000	9 1.6%
			4000	229	75	40000	4 0.7%
2-GATE SORTS	274		6000	260	112	44000	8 1.4%
DETECTR	SORTS	FREQ%	8000	239	149	48000	3 0.5%
8			10000	140	187	52000	5 0.9%
9	23	8.4%	12000	103	224	56000	3 0.5%
10	35	12.8%	14000	47	261	60000	3 0.5%
11	48	17.5%	16000	28	299	64000	2 0.4%
12	63	23.0%	18000	13	336	68000	0 0.0%
13	55	20.1%	20000	4	373	72000	1 0.2%
14	36	13.1%	22000	0	410	76000	1 0.2%
15	14	5.1%	24000	0	448	80000	1 0.2%
TOTAL	274		26000	0	485	84000	1 0.2%
			>28000	0	0	>84000	15 2.6%
			TOTAL	1308		TOTAL	571

SUMMARY TOTALS

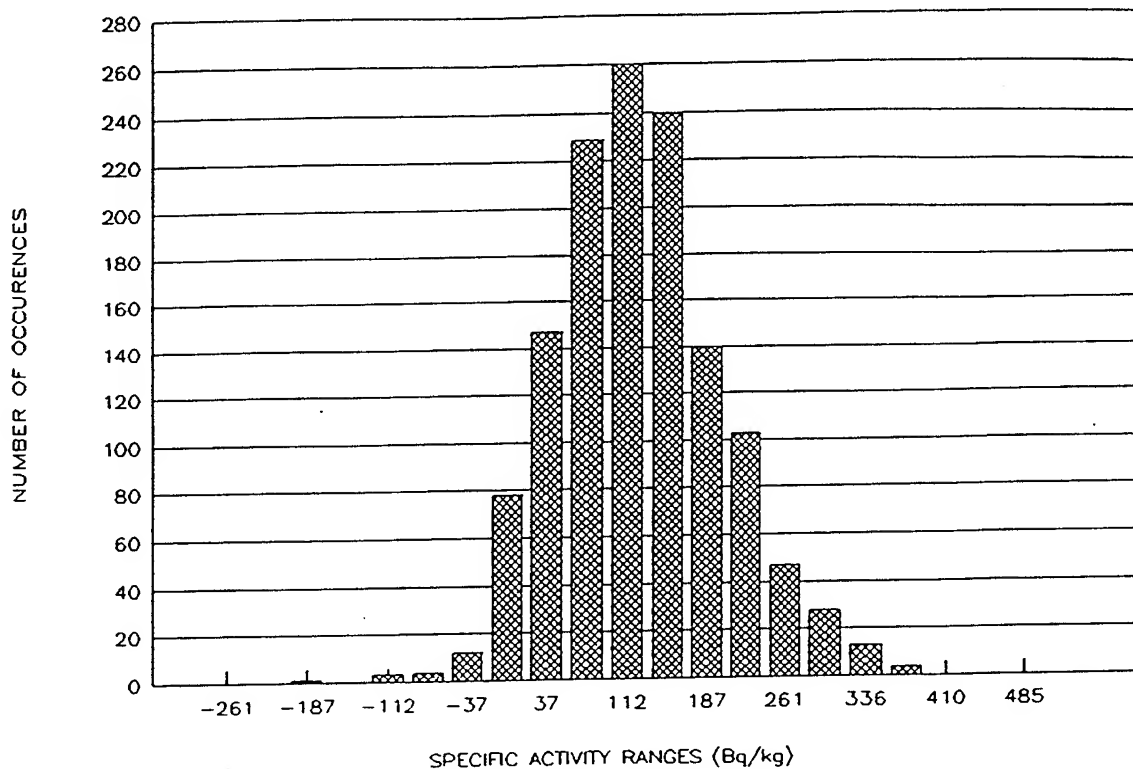
HOT PARTICLE EVENTS	559	SORTS BY ONE GATE ONLY	297
MULTIPARTICLE EVENTS	674	SORTS BY TWO GATES	274
DISTRIBUTED EVENTS	1810		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

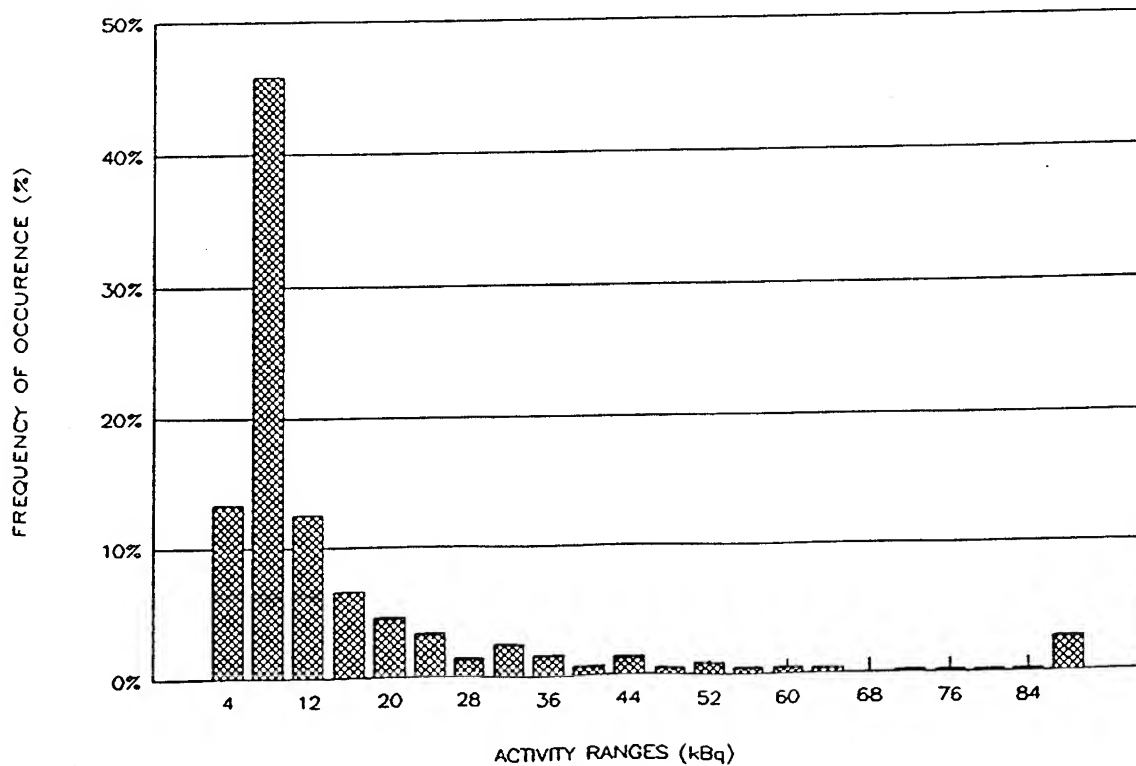
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 27-Mar-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 27-Mar-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 26-Mar-93

AVERAGE BACKGROUND COUNT RATE 0.70 ± 0.02 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	2.70 tons	87.4 tons
MAXIMUM/SORT	56.2 kg	53.6 kg
MINIMUM/SORT	0.7 kg	41.5 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		97.0%
EQUIVALENT SOIL-IN-GROUND	2.14 yd ³	69.3 yd ³ 71.4 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	19,825 kBq
MAXIMUM/SORT	327 kBq
MINIMUM/SORT	1.9 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

	9,559 kBq	4,803 kBq
MAXIMUM/SORT	249 kBq	18 kBq
MINIMUM/SORT	0 Bq	-15 kBq
SPECIFIC ACTIVITY	3,545 Bq/kg	55 Bq/kg

WORK HISTORY

WORK DAY START	05:51 AM	WORK DAY END	05:30 PM
PLANT START-UP	05:51 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:18 AM	END SOIL PROCESSING	04:56 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.6 hr
AVAILABLE HOURS	11.6 hr
ACTUAL PROCESS HOURS (total 20-sec records)	9.34 hr
DOWN-TIME	2.31 hr
TOTAL SYSTEM PAUSE	1.72 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.46 hr
SHUT-DOWN	0.55 hr
PLANT PERFORMANCE	80.2%
PRODUCTIVITY	80.2%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 3,051

NONPROCESS RECORDS (Test, calibration, etc) 14

20-SEC PROCESS RECORDS

TOTAL SORT	1,681	26 MD>0 & MND=0	
NO SORT	940 AD=0 & MD=0 & MND>0		
SOME SORT	715 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	2	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	12:51:57	05:51
ACT_P <5 kBq	441 32.2%	13:50:17	11:27

JA SOIL CLEANUP PLANT LOG SUMMARY

12:46

2-SEC COUNT PERIODS 16,810

2-SEC RECORDS WITH SORTS 1,370 (ACT_P >0 kBq)

2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	329	82.5%
3 DETECTORS	59	14.8%
4 DETECTORS	9	2.3%
5 DETECTORS	2	0.5%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	399	

NET 2-SEC RECORDS WITH SORTS 971

2-SEC PERIODS WITH NO SORTS 15,839

AVG TIME BETWEEN 2-SEC SORTS 34.6 sec

1-GATE SORTS	701	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P	
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)	
1	13	1.9%	-14000	1	-261	4000	230	16.8%	4
2	74	10.6%	-12000	1	-224	8000	550	40.1%	8
3	108	15.4%	-10000	2	-187	12000	204	14.9%	12
4	111	15.8%	-8000	3	-149	16000	94	6.9%	16
5	130	18.5%	-6000	5	-112	20000	53	3.9%	20
6	108	15.4%	-4000	20	-75	24000	44	3.2%	24
7	121	17.3%	-2000	113	-37	28000	33	2.4%	28
8	36	5.1%	0	274	0	32000	25	1.8%	32
TOTAL	701		2000	381	37	36000	19	1.4%	36
			4000	330	75	40000	15	1.1%	40
2-GATE SORTS	669	6000	250	112	44000	17	1.2%	44	
DETECTR	SORTS	FREQ%	8000	146	149	48000	10	0.7%	48
8			10000	73	187	52000	8	0.6%	52
9	37	5.5%	12000	46	224	56000	10	0.7%	56
10	92	13.8%	14000	27	261	60000	9	0.7%	60
11	104	15.5%	16000	20	299	64000	3	0.2%	64
12	112	16.7%	18000	3	336	68000	4	0.3%	68
13	131	19.6%	20000	0	373	72000	4	0.3%	72
14	118	17.6%	22000	0	410	76000	4	0.3%	76
15	75	11.2%	24000	0	448	80000	3	0.2%	80
TOTAL	669		26000	0	485	84000	4	0.3%	84
			>28000	0	0	>84000	27	2.0%	>84
			TOTAL	1695		TOTAL	1370		

SUMMARY TOTALS

HOT PARTICLE EVENTS	1319	SORTS BY ONE GATE ONLY	701
MULTIPARTICLE EVENTS	854	SORTS BY TWO GATES	669
DISTRIBUTED EVENTS	1851		

REC CODE EXPLANATION

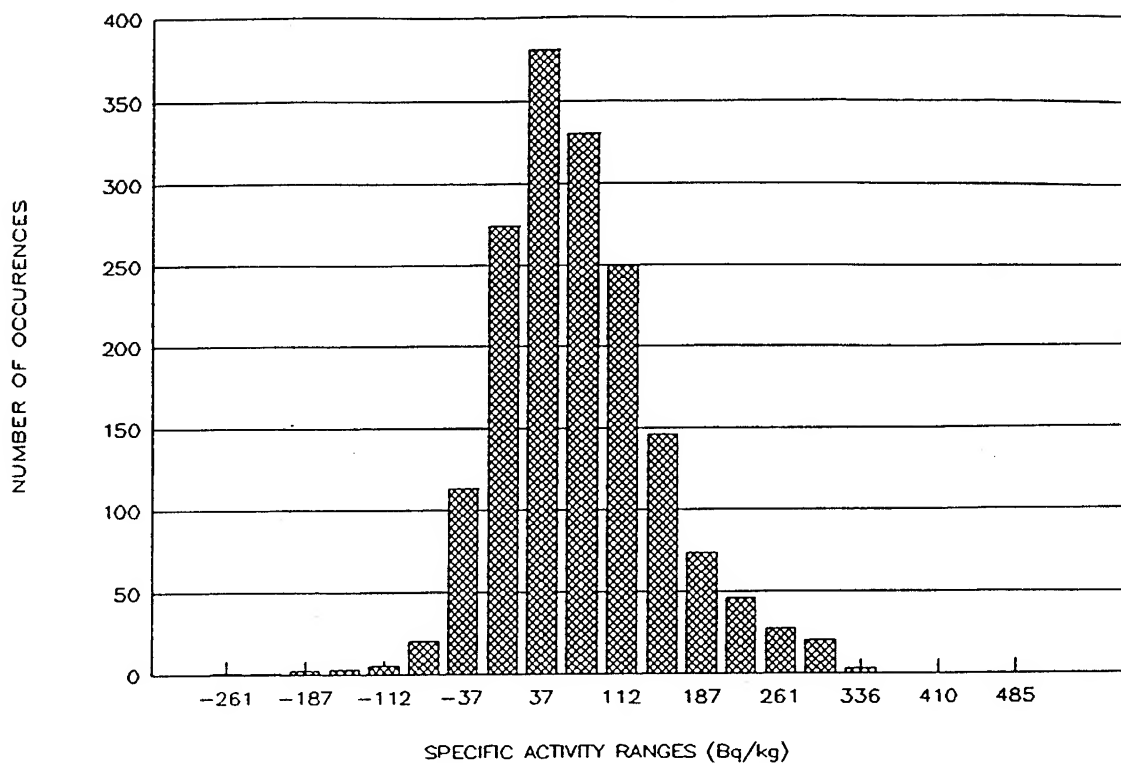
1.00 Source check (Soil on belt)

2.00 Empty belt

3.00 Test (No process soil)

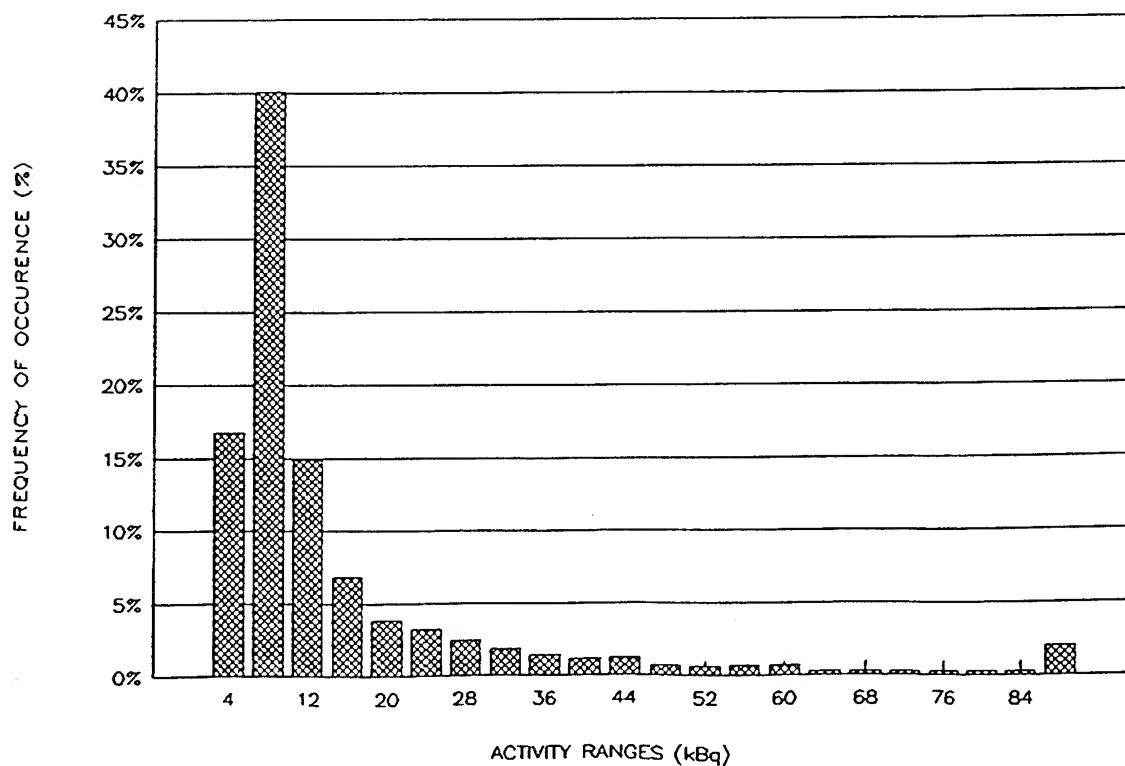
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 26-Mar-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 26-Mar-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 26-Mar-93

AVERAGE BACKGROUND COUNT RATE 0.78 ± 0.05 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	3.61 tons	86.5 tons
MAXIMUM/SORT	56.2 kg	53.6 kg
MINIMUM/SORT	0.7 kg	43.5 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		96.0%
EQUIVALENT SOIL-IN-GROUND	2.86 yd³	68.5 yd³ 71.4 yd³/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	21,955 kBq
MAXIMUM/SORT	694 kBq
MINIMUM/SORT	2.3 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	11,913 kBq	8,254 kBq
MAXIMUM/SORT	639 kBq	19 kBq
MINIMUM/SORT	-18 Bq	-6 kBq
SPECIFIC ACTIVITY	3,301 Bq/kg	95 Bq/kg

WORK HISTORY

WORK DAY START 05:51 AM
 PLANT START-UP 05:51 AM
 START SOIL PROCESSING 06:15 AM
 LUNCH START 11:30 AM

WORK DAY END 05:30 PM
 PLANT SHUT-DOWN 05:30 PM
 END SOIL PROCESSING 04:57 PM
 LUNCH PERIOD 0.0 hr

WORK HOURS	11.6 hr
AVAILABLE HOURS	11.6 hr
ACTUAL PROCESS HOURS (total 20-sec records)	9.34 hr
DOWN-TIME	2.31 hr
TOTAL SYSTEM PAUSE	1.78 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.41 hr
SHUT-DOWN	0.54 hr
PLANT PERFORMANCE	80.2%
PRODUCTIVITY	80.2%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 2,914

NONPROCESS RECORDS (Test, calibration, etc) 3

20-SEC PROCESS RECORDS

TOTAL SORT	1,681
NO SORT	44 MD>0 & MND=0
SOME SORT	828 AD=0 & MD=0 & MND>0
UNEXPLAINED RECORDS	809 AD>0&0<MD<MNDmax&MND<MNDmax
	0

0<AD<1kBq & MD>0	0
AD=0 & MD	0
AD<0 & MD	1

ACT_P <5 kBq 327 26.5%

UNEXPLAIN	PAUSE
TIME	TIME
12:51:58	05:51
	11:27

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS

16,810

12:45

2-SEC RECORDS WITH SORTS

1,233 (ACT_P >0 kBq)

2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	287	76.3%
3 DETECTORS	74	19.7%
4 DETECTORS	14	3.7%
5 DETECTORS	1	0.3%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%

TOTAL 376

NET 2-SEC RECORDS WITH SORTS

857

2-SEC PERIODS WITH NO SORTS

15,953

AVG TIME BETWEEN 2-SEC SORTS

39.2 sec

1-GATE SORTS	628	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)
1	22	3.5%	-14000	0	-261	4000	153 12.4%
2	100	15.9%	-12000	0	-224	8000	488 39.6%
3	117	18.6%	-10000	1	-187	12000	204 16.5%
4	142	22.6%	-8000	0	-149	16000	109 8.8%
5	123	19.6%	-6000	0	-112	20000	55 4.5%
6	91	14.5%	-4000	6	-75	24000	37 3.0%
7	26	4.1%	-2000	28	-37	28000	28 2.3%
8	7	1.1%	0	162	0	32000	17 1.4%
TOTAL	628		2000	219	37	36000	18 1.5%
			4000	321	75	40000	13 1.1%
2-GATE SORTS	605		6000	322	112	44000	13 1.1%
DETECTR	SORTS	FREQ%	8000	285	149	48000	10 0.8%
8			10000	162	187	52000	13 1.1%
9	51	8.4%	12000	93	224	56000	7 0.6%
10	105	17.4%	14000	49	261	60000	6 0.5%
11	124	20.5%	16000	23	299	64000	2 0.2%
12	125	20.7%	18000	9	336	68000	7 0.6%
13	120	19.8%	20000	4	373	72000	4 0.3%
14	63	10.4%	22000	0	410	76000	2 0.2%
15	17	2.8%	24000	0	448	80000	4 0.3%
TOTAL	605		26000	0	485	84000	3 0.2%
			>28000	0	0	>84000	40 3.2%
			TOTAL	1684		TOTAL	1233

SUMMARY TOTALS

HOT PARTICLE EVENTS	1185
MULTIPARTICLE EVENTS	1137
DISTRIBUTED EVENTS	3062

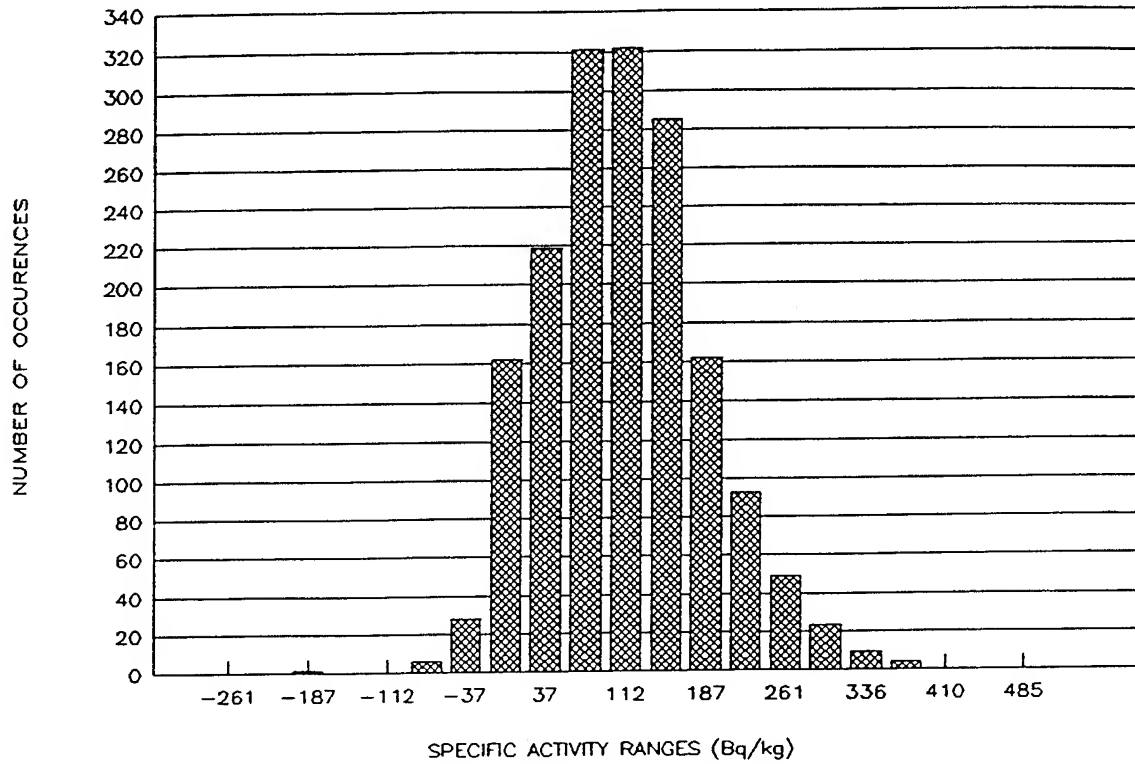
SORTS BY ONE GATE ONLY	628
SORTS BY TWO GATES	605

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

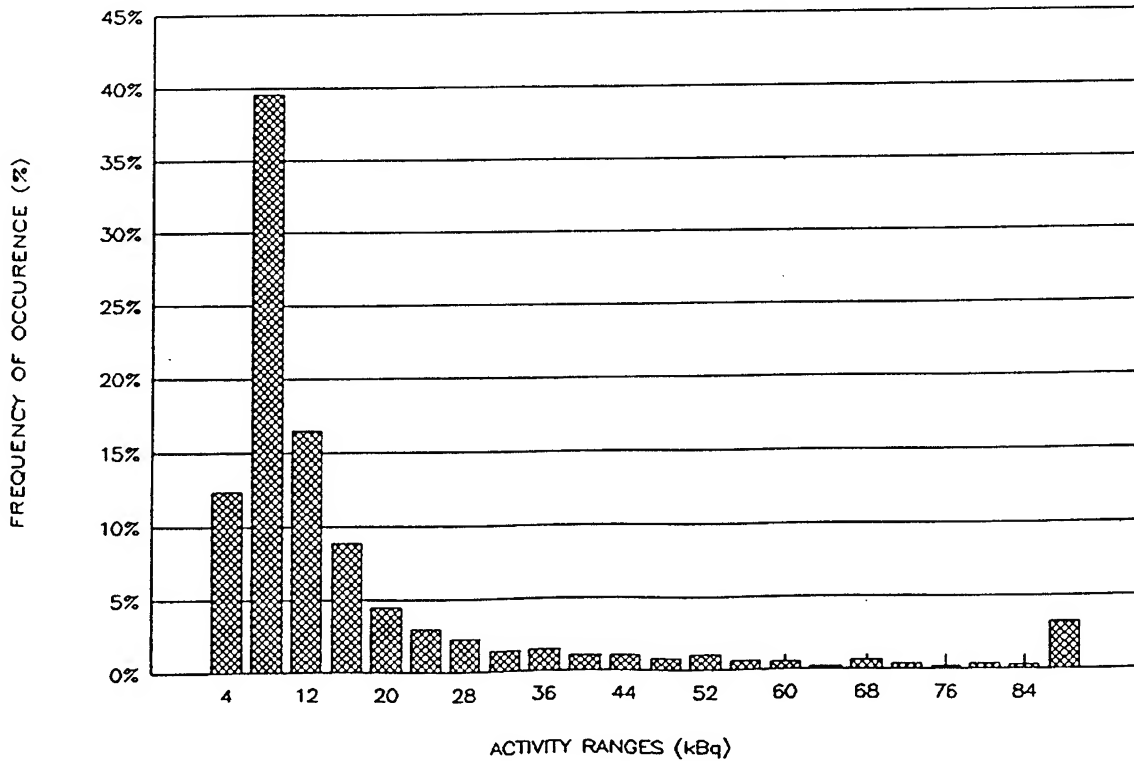
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2-LOG DATA FOR 26-Mar-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 26-Mar-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 25-Mar-93

AVERAGE BACKGROUND COUNT RATE 0.70 ± 0.02 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	1.40 tons	102.8 tons
MAXIMUM/SORT	10.7 kg	53.6 kg
MINIMUM/SORT	0.7 kg	42.8 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		98.7%
EQUIVALENT SOIL-IN-GROUND	1.11 yd ³	81.5 yd ³ 82.6 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	21,427 kBq
MAXIMUM/SORT	551 kBq
MINIMUM/SORT	2.5 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

	9,541 kBq	4,028 kBq
MAXIMUM/SORT	501 kBq	15 kBq
MINIMUM/SORT	0 Bq	-15 kBq
SPECIFIC ACTIVITY	6,809 Bq/kg	39 Bq/kg

WORK HISTORY

WORK DAY START	05:51 AM	WORK DAY END	05:30 PM
PLANT START-UP	05:51 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:17 AM	END SOIL PROCESSING	05:05 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.6 hr
AVAILABLE HOURS	11.6 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.80 hr
DOWN-TIME	0.85 hr
TOTAL SYSTEM PAUSE	0.44 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.44 hr
SHUT-DOWN	0.41 hr
PLANT PERFORMANCE	92.7%
PRODUCTIVITY	92.7%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 3,357

NONPROCESS RECORDS (Test, calibration, etc) 5

20-SEC PROCESS RECORDS

TOTAL SORT	1,944
NO SORT	0 MD>0 & MND=0
SOME SORT	1,101 AD=0 & MD=0 & MND>0
UNEXPLAINED RECORDS	843 AD>0&0<MD<MNDmax&MND<MNDmax
	0

		UNEXPLAIN	PAUSE
		TIME	TIME
0<AD<1kBq & MD>0	3		
AD=0 & MD	0		
AD<0 & MD	0	12:41:28	05:50
ACT_P <5 kBq	433 30.6%	14:04:48	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS

19,440

14:24:28

2-SEC RECORDS WITH SORTS

1,413 (ACT_P > 0 kBq)

2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	343	80.9%
3 DETECTORS	68	16.0%
4 DETECTORS	10	2.4%
5 DETECTORS	3	0.7%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%

TOTAL 424

NET 2-SEC RECORDS WITH SORTS

989

2-SEC PERIODS WITH NO SORTS

18,451

AVG TIME BETWEEN 2-SEC SORTS

39.3 sec

1-GATE SORTS	702	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%	ACT_P	
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	
1	10	1.4%	-14000	1	-261	4000	202 14.3%	4
2	56	8.0%	-12000	3	-224	8000	572 40.5%	8
3	95	13.5%	-10000	2	-187	12000	221 15.6%	12
4	133	18.9%	-8000	6	-149	16000	115 8.1%	16
5	150	21.4%	-6000	12	-112	20000	75 5.3%	20
6	110	15.7%	-4000	53	-75	24000	50 3.5%	24
7	123	17.5%	-2000	143	-37	28000	38 2.7%	28
8	25	3.6%	0	338	0	32000	26 1.8%	32
TOTAL	702		2000	450	37	36000	19 1.3%	36
			4000	380	75	40000	12 0.8%	40
			6000	304	112	44000	10 0.7%	44
2-GATE SORTS	711		8000	151	149	48000	15 1.1%	48
DETECTR	SORTS	FREQ%	10000	68	187	52000	7 0.5%	52
8			12000	25	224	56000	3 0.2%	56
9	30	4.2%	14000	8	261	60000	7 0.5%	60
10	80	11.3%	16000	5	299	64000	3 0.2%	64
11	113	15.9%	18000	0	336	68000	2 0.1%	68
12	147	20.7%	20000	0	373	72000	7 0.5%	72
13	145	20.4%	22000	0	410	76000	0 0.0%	76
14	117	16.5%	24000	0	448	80000	1 0.1%	80
15	79	11.1%	26000	0	485	84000	3 0.2%	84
TOTAL	711		>28000	0	0	>84000	25 1.8%	>84
			TOTAL	1949		TOTAL	1413	

SUMMARY TOTALS

HOT PARTICLE EVENTS	1369
MULTIPARTICLE EVENTS	727
DISTRIBUTED EVENTS	0

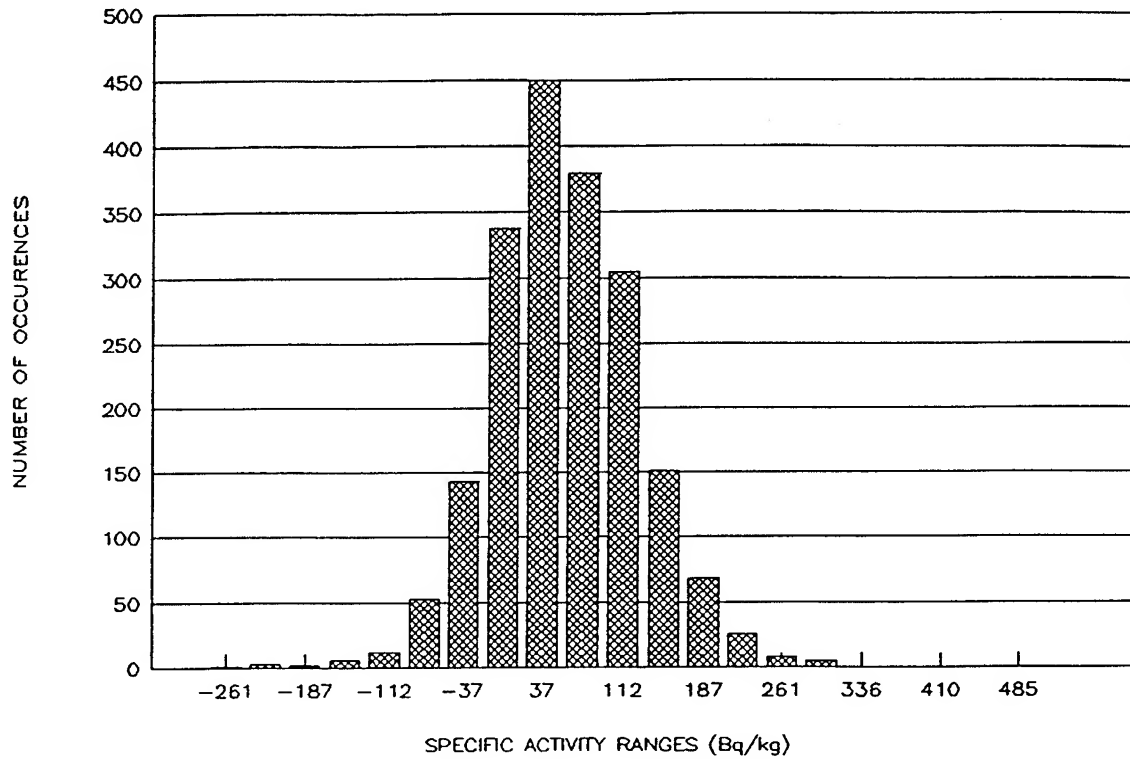
SORTS BY ONE GATE ONLY	702
SORTS BY TWO GATES	711

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

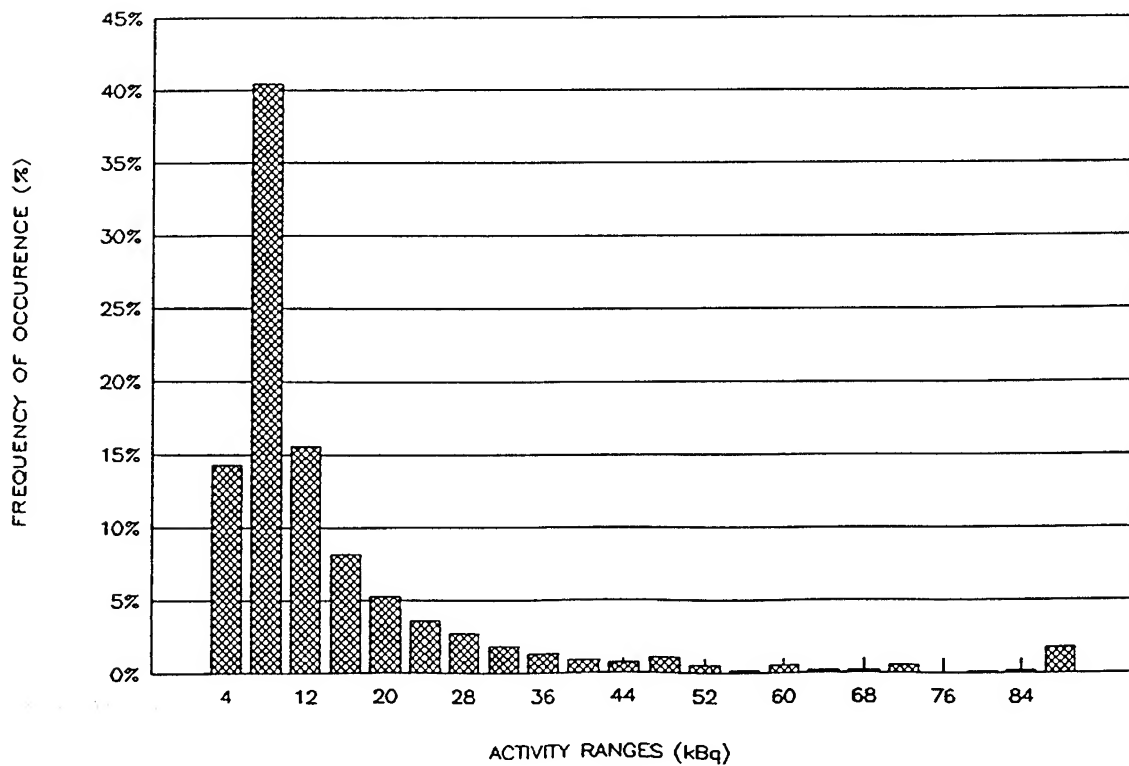
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 25-Mar-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 25-Mar-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 25-Mar-93

AVERAGE BACKGROUND COUNT RATE	0.79 ± 0.04 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	1.62 tons	100.5 tons	
MAXIMUM/SORT	56.2 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	46.2 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			98.4%
EQUIVALENT SOIL-IN-GROUND	1.28 yd ³	79.7 yd ³	81.0 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	18,229 kBq		
MAXIMUM/SORT	438 kBq		
MINIMUM/SORT	2.3 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	9,115 kBq	8,636 kBq	
MINIMUM/SORT	340 kBq	19 kBq	
SPECIFIC ACTIVITY	0 Bq	-14 kBq	
	5,632 Bq/kg	86 Bq/kg	
WORK HISTORY			
WORK DAY START	05:50 AM	WORK DAY END	05:30 PM
PLANT START-UP	05:50 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:17 AM	END SOIL PROCESSING	04:54 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr
WORK HOURS	11.7 hr		
AVAILABLE HOURS	11.7 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	10.59 hr		
DOWN-TIME	1.08 hr		
TOTAL SYSTEM PAUSE	0.48 hr		
NONAVAILABLE HOURS	0.0 hr		
START-UP	0.46 hr		
SHUT-DOWN	0.59 hr		
PLANT PERFORMANCE	90.8%		
PRODUCTIVITY	90.8%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	3,064		
NONPROCESS RECORDS (Test, calibration, etc)	5		
20-SEC PROCESS RECORDS	1,906		
TOTAL SORT	4 MD>0 & MND=0		
NO SORT	978 AD=0 & MD=0 & MND>0		
SOME SORT	924 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	1	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	11:03:06	05:50
ACT_P <5 kBq	308 26.6%		08:27

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 19,060
 2-SEC RECORDS WITH SORTS 1,158 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 263 83.5%
 3 DETECTORS 45 14.3%
 4 DETECTORS 7 2.2%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 315
 NET 2-SEC RECORDS WITH SORTS 843
 2-SEC PERIODS WITH NO SORTS 18,217
 AVG TIME BETWEEN 2-SEC SORTS 45.2 sec

1-GATE SORTS		592	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT FREQ%		ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	24	4.1%	-14000	1	-261	4000	124	10.7%	4
2	96	16.2%	-12000	3	-224	8000	496	42.8%	8
3	117	19.8%	-10000	2	-187	12000	192	16.6%	12
4	148	25.0%	-8000	2	-149	16000	85	7.3%	16
5	108	18.2%	-6000	2	-112	20000	54	4.7%	20
6	63	10.6%	-4000	8	-75	24000	40	3.5%	24
7	27	4.6%	-2000	38	-37	28000	33	2.8%	28
8	9	1.5%	0	127	0	32000	24	2.1%	32
TOTAL	592		2000	284	37	36000	21	1.8%	36
			4000	401	75	40000	14	1.2%	40
2-GATE SORTS		566	6000	413	112	44000	8	0.7%	44
DETECTR	SORTS	FREQ%	8000	334	149	48000	3	0.3%	48
8			10000	164	187	52000	6	0.5%	52
9	51	9.0%	12000	68	224	56000	7	0.6%	56
10	97	17.1%	14000	45	261	60000	4	0.3%	60
11	134	23.7%	16000	11	299	64000	7	0.6%	64
12	125	22.1%	18000	6	336	68000	2	0.2%	68
13	92	16.3%	20000	2	373	72000	2	0.2%	72
14	43	7.6%	22000	0	410	76000	1	0.1%	76
15	24	4.2%	24000	0	448	80000	2	0.2%	80
TOTAL	566		26000	0	485	84000	2	0.2%	84
			>28000	0	0	>84000	31	2.7%	>84
			TOTAL	1911		TOTAL	1158		

SUMMARY TOTALS

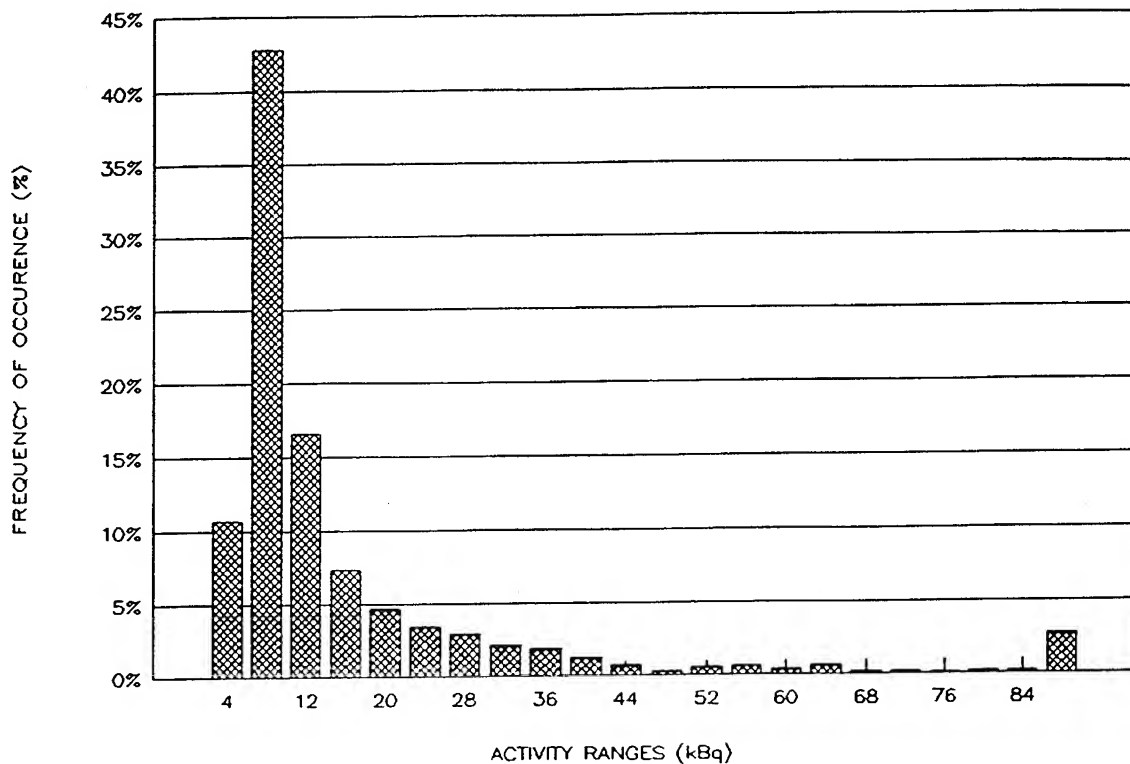
HOT PARTICLE EVENTS	1154	SORTS BY ONE GATE ONLY	592
MULTIPARTICLE EVENTS	944	SORTS BY TWO GATES	566
DISTRIBUTED EVENTS	318		

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

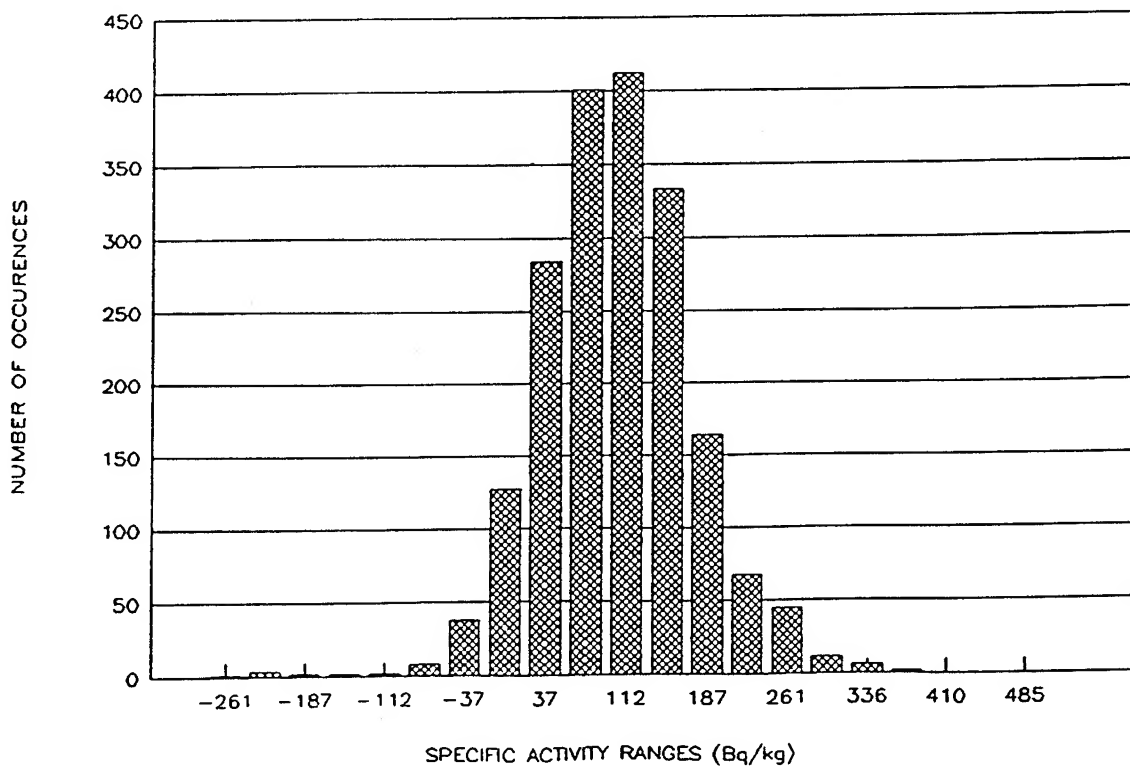
JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 25-Mar-93



CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 25-Mar-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 24-Mar-93

AVERAGE BACKGROUND COUNT RATE 0.69 ± 0.02 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.88 tons	38.5 tons
MAXIMUM/SORT	14.1 kg	53.6 kg
MINIMUM/SORT	0.7 kg	39.5 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		97.8%
EQUIVALENT SOIL-IN-GROUND	0.70 yd ³	30.5 yd ³ 31.2 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	23,430 kBq
MAXIMUM/SORT	3,247 kBq
MINIMUM/SORT	2.4 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	9,594 kBq	2,246 kBq
MAXIMUM/SORT	2667 kBq	17 kBq
MINIMUM/SORT	0 Bq	-5 kBq
SPECIFIC ACTIVITY	10,938 Bq/kg	58 Bq/kg

WORK HISTORY

WORK DAY START 07:00 AM
 PLANT START-UP 07:00 AM
 START SOIL PROCESSING 12:49 PM
 LUNCH START 11:30 AM

WORK DAY END 05:30 PM
 PLANT SHUT-DOWN 05:30 PM
 END SOIL PROCESSING 04:53 PM
 LUNCH PERIOD 0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	10.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	4.08 hr
DOWN-TIME	5.92 hr
TOTAL SYSTEM PAUSE	3.66 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	5.83 hr
SHUT-DOWN	0.60 hr
PLANT PERFORMANCE	40.8%
PRODUCTIVITY	40.8%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 1,710

NONPROCESS RECORDS (Test, calibration, etc) 7

20-SEC PROCESS RECORDS

734

TOTAL SORT	0 MD>0 & MND=0
NO SORT	382 AD=0 & MD=0 & MND>0
SOME SORT	352 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0

0<AD<1kBq & MD>0	0	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	None	09:10
ACT_P <5 kBq	291	29.8%	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 7,340
 2-SEC RECORDS WITH SORTS 976 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 252 77.1%
 3 DETECTORS 60 18.3%
 4 DETECTORS 10 3.1%
 5 DETECTORS 3 0.9%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 327
 NET 2-SEC RECORDS WITH SORTS 649
 2-SEC PERIODS WITH NO SORTS 6,691
 AVG TIME BETWEEN 2-SEC SORTS 22.6 sec

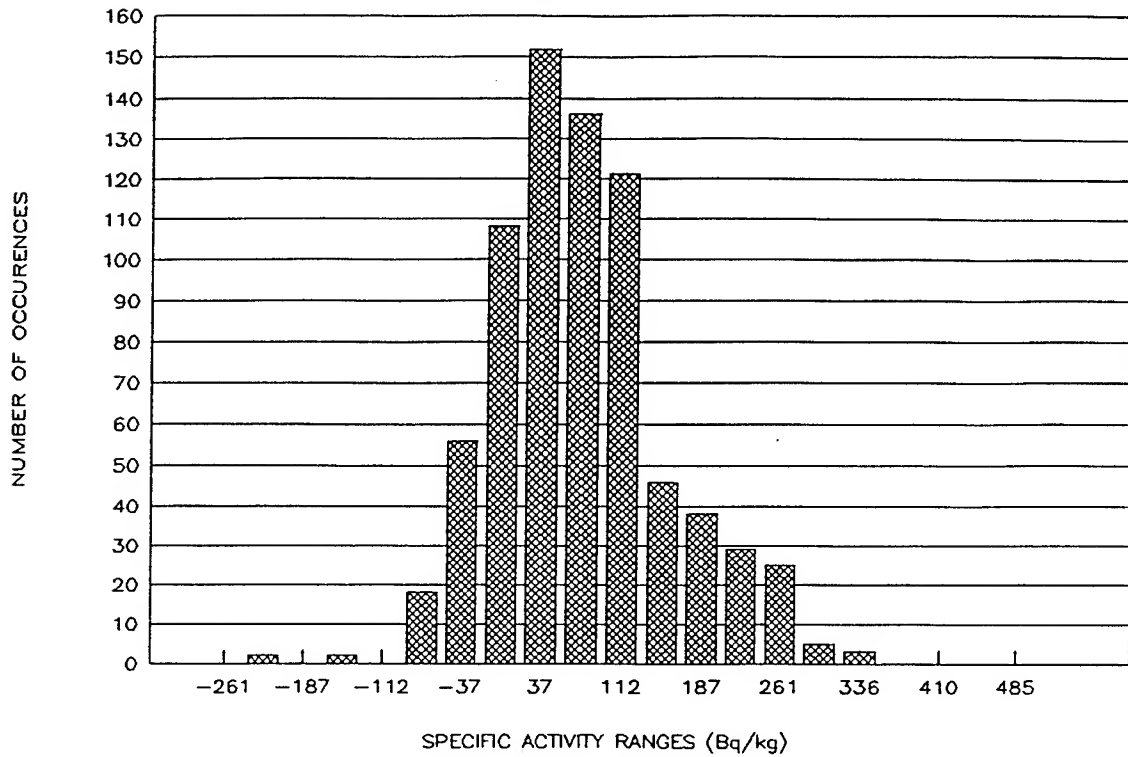
1-GATE SORTS DETECTR	SORTS	491 FREQ%	ACT_NO (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT FREQ%	ACT_P (kBq)
1	3	0.6%	-14000	0	-261	4000	152 15.6%	4
2	27	5.5%	-12000	2	-224	8000	366 37.5%	8
3	63	12.8%	-10000	0	-187	12000	136 13.9%	12
4	93	18.9%	-8000	2	-149	16000	80 8.2%	16
5	125	25.5%	-6000	0	-112	20000	56 5.7%	20
6	100	20.4%	-4000	18	-75	24000	42 4.3%	24
7	69	14.1%	-2000	56	-37	28000	28 2.9%	28
8	11	2.2%	0	108	0	32000	20 2.0%	32
TOTAL	491		2000	152	37	36000	10 1.0%	36
			4000	136	75	40000	8 0.8%	40
2-GATE SORTS		485	6000	121	112	44000	6 0.6%	44
DETECTR	SORTS	FREQ%	8000	46	149	48000	7 0.7%	48
8			10000	38	187	52000	4 0.4%	52
9	19	3.9%	12000	29	224	56000	6 0.6%	56
10	49	10.1%	14000	25	261	60000	8 0.8%	60
11	71	14.6%	16000	5	299	64000	8 0.8%	64
12	114	23.5%	18000	3	336	68000	1 0.1%	68
13	112	23.1%	20000	0	373	72000	3 0.3%	72
14	80	16.5%	22000	0	410	76000	2 0.2%	76
15	40	8.2%	24000	0	448	80000	1 0.1%	80
TOTAL	485		26000	0	485	84000	4 0.4%	84
			>28000	0	0	>84000	28 2.9%	>84
			TOTAL	741		TOTAL	976	
SUMMARY TOTALS								
HOT PARTICLE EVENTS			893	SORTS BY ONE GATE ONLY		491		
MULTIPARTICLE EVENTS			417	SORTS BY TWO GATES		485		
DISTRIBUTED EVENTS			0					

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

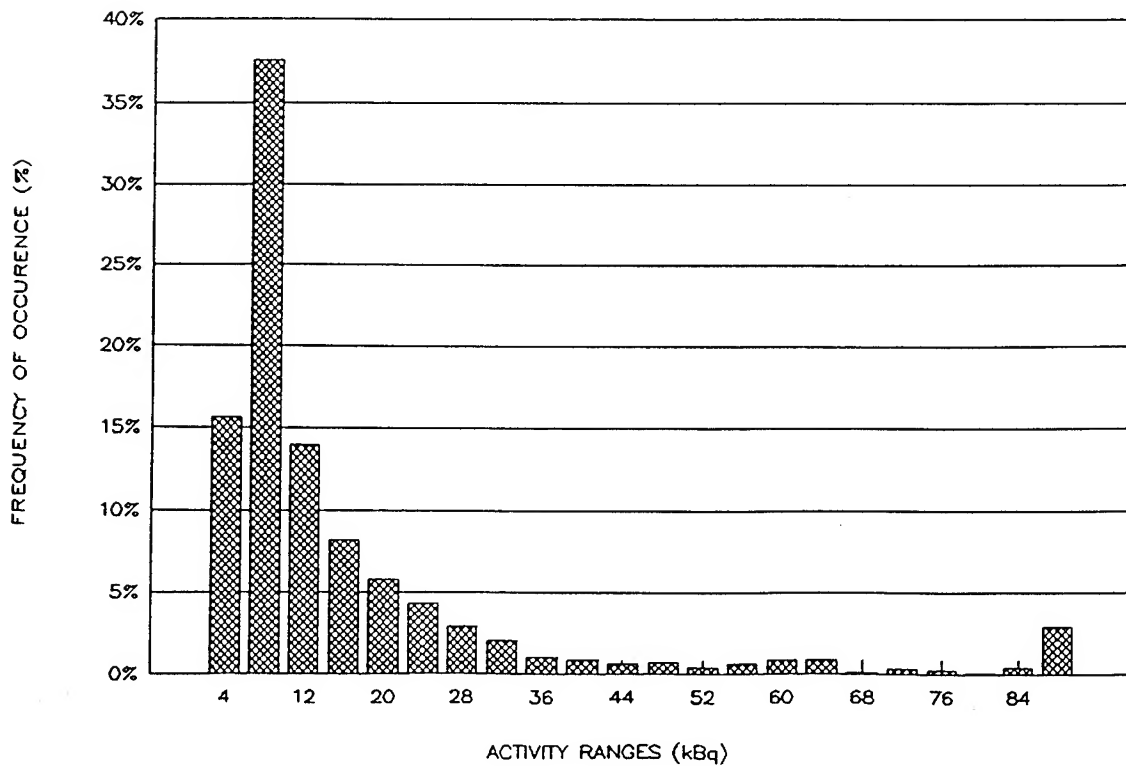
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 24-Mar-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 24-Mar-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 24-Mar-93

AVERAGE BACKGROUND COUNT RATE

0.79 ± 0.04 c/sec

SORTER SOIL DENSITY

1.15 tons/m³

GROUND SOIL DENSITY

1.65 tons/m³

MASS TOTAL

CONTAMINATED

CLEAN

0.86 tons

38.6 tons

MAXIMUM/SORT

53.6 kg

53.6 kg

MINIMUM/SORT

0.7 kg

43.5 kg

WEIGHT RECOVERY OR VOLUME RECOVERY

97.8%

EQUIVALENT SOIL-IN-GROUND

0.69 yd³

30.6 yd³

31.3 yd³/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL

10,309 kBq

MAXIMUM/SORT

387 kBq

MINIMUM/SORT

2.7 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

4,941 kBq

3,787 kBq

MAXIMUM/SORT

251 kBq

19 kBq

MINIMUM/SORT

0 Bq

-5 kBq

SPECIFIC ACTIVITY

5,713 Bq/kg

98 Bq/kg

WORK HISTORY

WORK DAY START

07:00 AM

WORK DAY END

05:30 PM

PLANT START-UP

07:00 AM

PLANT SHUT-DOWN

05:30 PM

START SOIL PROCESSING

12:49 PM

END SOIL PROCESSING

04:54 PM

LUNCH START

11:30 AM

LUNCH PERIOD

0.5 hr

WORK HOURS

10.0 hr

AVAILABLE HOURS

10.0 hr

ACTUAL PROCESS HOURS (total 20-sec records)

4.09 hr

DOWN-TIME

5.91 hr

TOTAL SYSTEM PAUSE

3.66 hr

NONAVAILABLE HOURS

0.0 hr

START-UP

5.83 hr

SHUT-DOWN

0.59 hr

PLANT PERFORMANCE

40.9%

PRODUCTIVITY

40.9%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)

1,340

NONPROCESS RECORDS (Test, calibration, etc)

5

20-SEC PROCESS RECORDS

736

TOTAL SORT

4 MD>0 & MND=0

NO SORT

391 AD=0 & MD=0 & MND>0

SOME SORT

341 AD>0&0<MD<MNDmax&MND<MNDmax

UNEXPLAINED RECORDS

0

0<AD<1kBq & MD>0

1

UNEXPLAIN

PAUSE

AD=0 & MD

0

TIME

TIME

AD<0 & MD

0

13:51:57

09:10

ACT_P <5 kBq

147

24.3%

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 7,360
 2-SEC RECORDS WITH SORTS 604 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 158 80.6%
 3 DETECTORS 33 16.8%
 4 DETECTORS 5 2.6%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 196
 NET 2-SEC RECORDS WITH SORTS 408
 2-SEC PERIODS WITH NO SORTS 6,952
 AVG TIME BETWEEN 2-SEC SORTS 36.1 sec

1-GATE SORTS		309	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQX		ACT_P
DETECTR	SORTS	FREQX	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	4	1.3%	-14000	1	-261	4000	68	11.3%	4
2	44	14.2%	-12000	1	-224	8000	221	36.6%	8
3	77	24.9%	-10000	0	-187	12000	104	17.2%	12
4	66	21.4%	-8000	0	-149	16000	64	10.6%	16
5	60	19.4%	-6000	1	-112	20000	30	5.0%	20
6	31	10.0%	-4000	4	-75	24000	26	4.3%	24
7	21	6.8%	-2000	16	-37	28000	15	2.5%	28
8	6	1.9%	0	44	0	32000	15	2.5%	32
TOTAL	309		2000	93	37	36000	10	1.7%	36
			4000	150	75	40000	5	0.8%	40
2-GATE SORTS		295	6000	153	112	44000	4	0.7%	44
DETECTR	SORTS	FREQX	8000	115	149	48000	4	0.7%	48
8			10000	69	187	52000	3	0.5%	52
9	21	7.1%	12000	46	224	56000	5	0.8%	56
10	44	14.9%	14000	34	261	60000	5	0.8%	60
11	76	25.8%	16000	10	299	64000	2	0.3%	64
12	59	20.0%	18000	3	336	68000	2	0.3%	68
13	55	18.6%	20000	1	373	72000	1	0.2%	72
14	24	8.1%	22000	0	410	76000	1	0.2%	76
15	16	5.4%	24000	0	448	80000	1	0.2%	80
TOTAL	295		26000	0	485	84000	0	0.0%	84
			>28000	0	0	>84000	18	3.0%	>84
			TOTAL	741		TOTAL	604		

SUMMARY TOTALS

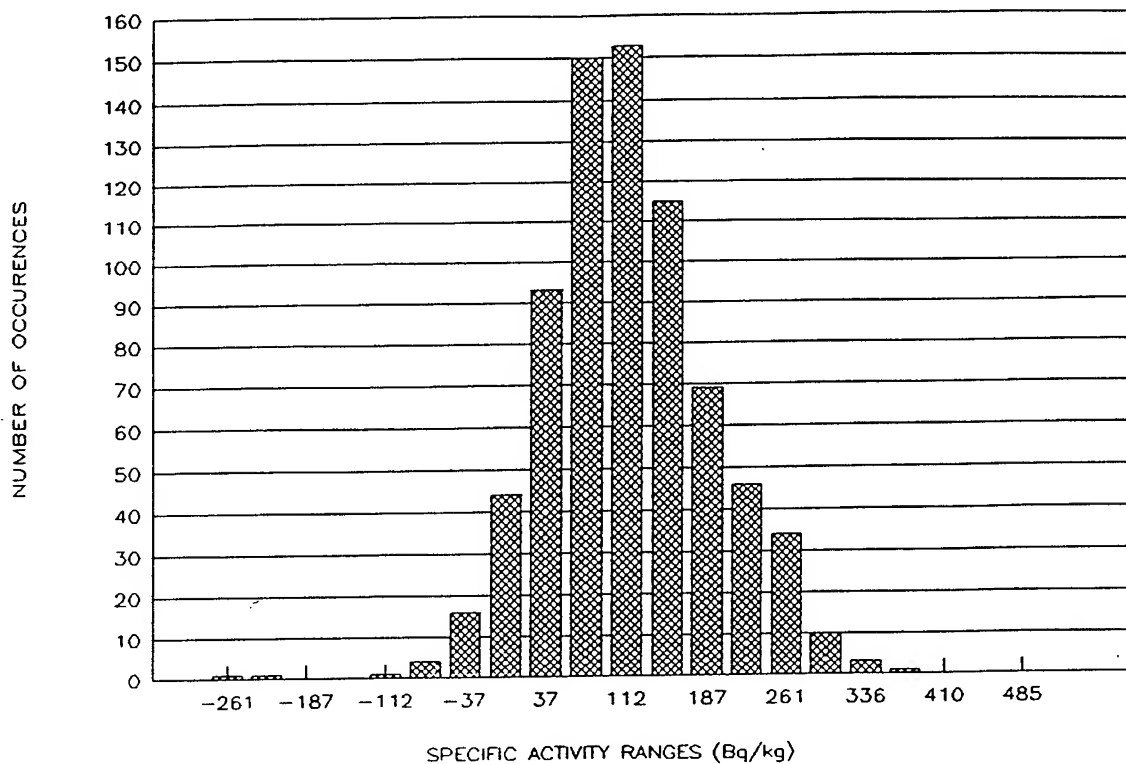
HOT PARTICLE EVENTS	568	SORTS BY ONE GATE ONLY	309
MULTIPARTICLE EVENTS	449	SORTS BY TWO GATES	295
DISTRIBUTED EVENTS	274		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

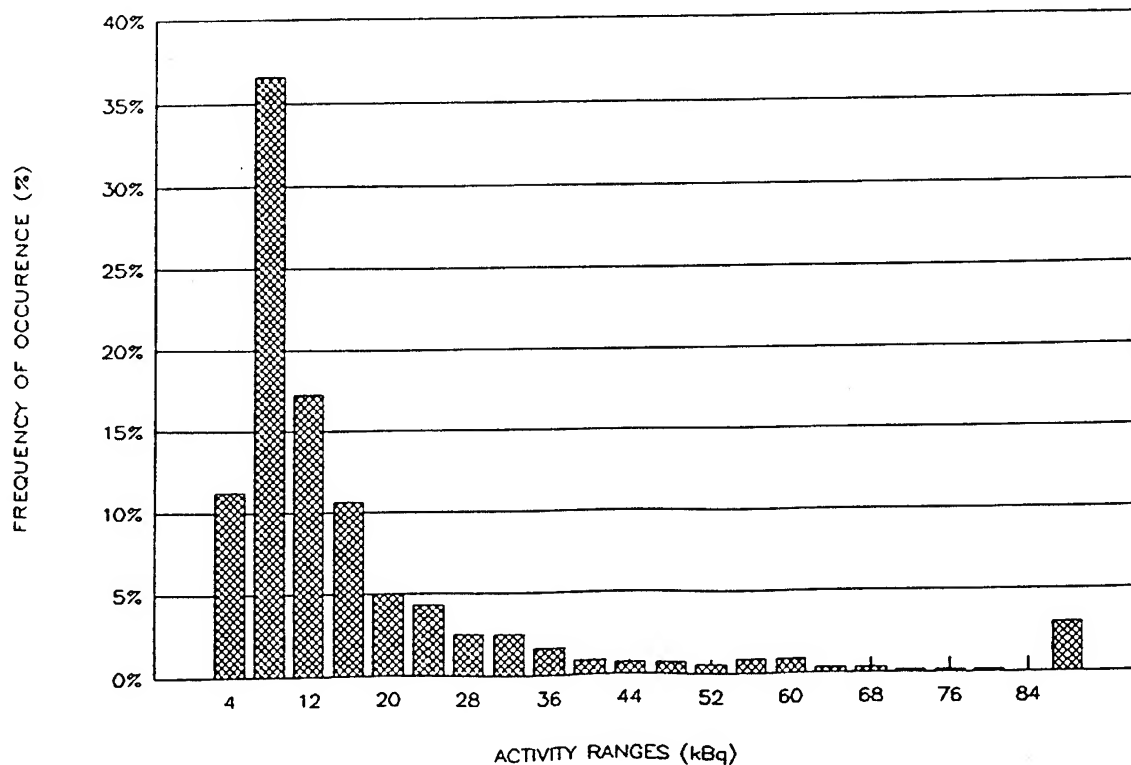
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 24-Mar-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 24-Mar-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 23-Mar-93

AVERAGE BACKGROUND COUNT RATE 0.70 ± 0.02 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.74 tons	99.2 tons
MAXIMUM/SORT	56.2 kg	53.6 kg
MINIMUM/SORT	0.7 kg	46.2 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		99.3%
EQUIVALENT SOIL-IN-GROUND	0.59 yd³	78.6 yd³ 79.2 yd³/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	10,215 kBq
MAXIMUM/SORT	172 kBq
MINIMUM/SORT	2.2 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	4,411 kBq	1,608 kBq
MAXIMUM/SORT	134 kBq	13 kBq
MINIMUM/SORT	0 Bq	-14 kBq
SPECIFIC ACTIVITY	5,974 Bq/kg	16 Bq/kg

WORK HISTORY

WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:15 AM	END SOIL PROCESSING	04:49 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.5 hr
AVAILABLE HOURS	11.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.36 hr
DOWN-TIME	1.14 hr
TOTAL SYSTEM PAUSE	0.60 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.25 hr
SHUT-DOWN	0.67 hr
PLANT PERFORMANCE	90.1%
PRODUCTIVITY	90.1%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,555
NONPROCESS RECORDS (Test, calibration, etc)	10

20-SEC PROCESS RECORDS	1,865		
TOTAL SORT	1 MD>0 & MND=0		
NO SORT	1,390 AD=0 & MD=0 & MND>0		
SOME SORT	474 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	0	UNEXPLAIN	PAUSE
AD=0 & MD	1	TIME	TIME
AD<0 & MD	0	11:29:41	05:53
ACT_P <5 kBq	193 28.0%		11:17

JA SOIL CLEANUP PLANT LOG SUMMARY

11:30

2-SEC COUNT PERIODS

18,650

2-SEC RECORDS WITH SORTS

690 (ACT_P > 0 kBq)

2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	160	81.6%
3 DETECTORS	33	16.8%
4 DETECTORS	3	1.5%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%

TOTAL 196

NET 2-SEC RECORDS WITH SORTS

494

2-SEC PERIODS WITH NO SORTS

18,156

AVG TIME BETWEEN 2-SEC SORTS

75.5 sec

1-GATE SORTS	338	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P	
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)	
1	6	1.8%	-14000	1	-261	4000	101	14.6%	4
2	36	10.7%	-12000	4	-224	8000	257	37.2%	8
3	44	13.0%	-10000	6	-187	12000	101	14.6%	12
4	63	18.6%	-8000	2	-149	16000	65	9.4%	16
5	67	19.8%	-6000	20	-112	20000	31	4.5%	20
6	57	16.9%	-4000	81	-75	24000	20	2.9%	24
7	54	16.0%	-2000	238	-37	28000	20	2.9%	28
8	11	3.3%	0	407	0	32000	16	2.3%	32
TOTAL	338		2000	478	37	36000	12	1.7%	36
			4000	343	75	40000	10	1.4%	40
2-GATE SORTS	352	6000	166	112	44000	11	1.6%	44	
DETECTR	SORTS	FREQ%	8000	90	149	48000	3	0.4%	48
8			10000	27	187	52000	4	0.6%	52
9	23	6.5%	12000	9	224	56000	9	1.3%	56
10	41	11.6%	14000	3	261	60000	7	1.0%	60
11	55	15.6%	16000	0	299	64000	3	0.4%	64
12	67	19.0%	18000	0	336	68000	4	0.6%	68
13	71	20.2%	20000	0	373	72000	0	0.0%	72
14	66	18.8%	22000	0	410	76000	3	0.4%	76
15	29	8.2%	24000	0	448	80000	0	0.0%	80
TOTAL	352		26000	0	485	84000	2	0.3%	84
			>28000	0	0	>84000	11	1.6%	>84
			TOTAL	1875		TOTAL	690		

SUMMARY TOTALS

HOT PARTICLE EVENTS	682
MULTIPARTICLE EVENTS	337
DISTRIBUTED EVENTS	83

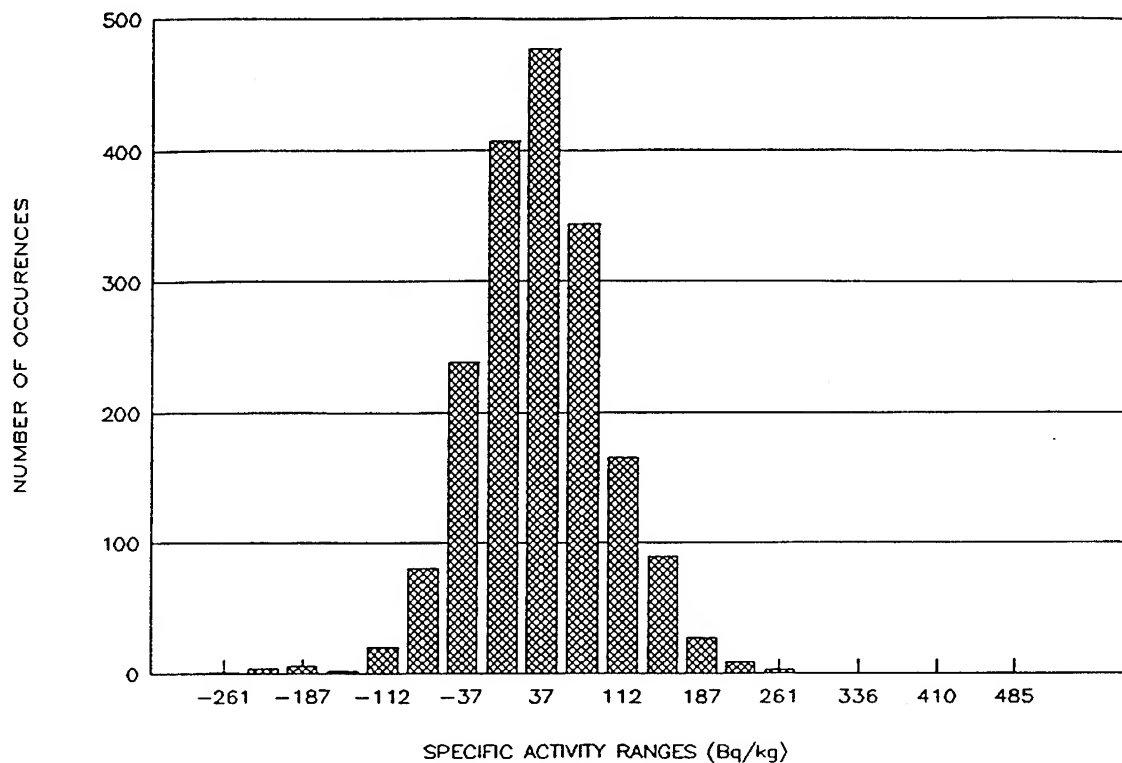
SORTS BY ONE GATE ONLY	338
SORTS BY TWO GATES	352

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

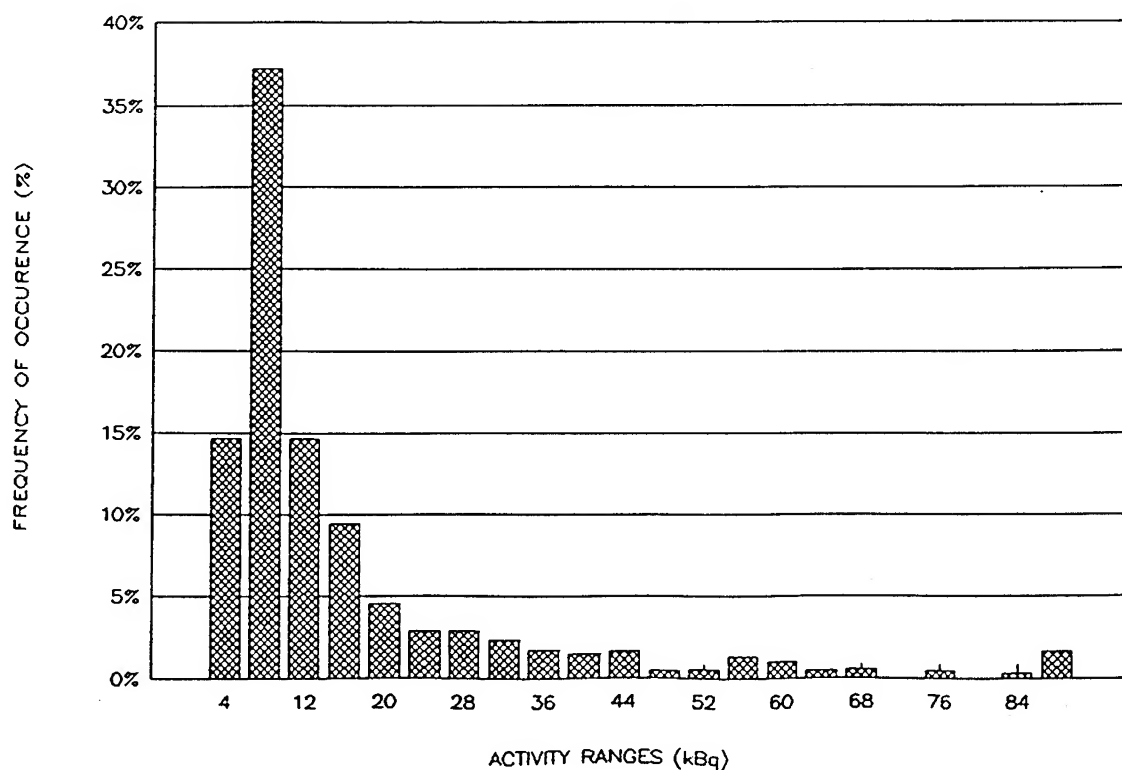
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 23-Mar-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 23-Mar-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 23-Mar-93

AVERAGE BACKGROUND COUNT RATE 0.78 ± 0.05 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.25 tons	32.8 tons
MAXIMUM/SORT	56.2 kg	53.6 kg
MINIMUM/SORT	0.7 kg	49.5 kg

			99.3%
WEIGHT RECOVERY OR VOLUME RECOVERY			
EQUIVALENT SOIL-IN-GROUND	0.20 yd ³	26.0 yd ³	26.2 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	2,207 kBq
MAXIMUM/SORT	179 kBq
MINIMUM/SORT	2.7 kBq

	1,111 kBq	2,490 kBq
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY		
MAXIMUM/SORT	141 kBq	17 kBq
MINIMUM/SORT	-8078 Bq	-11 kBq
SPECIFIC ACTIVITY	4,497 Bq/kg	76 Bq/kg

WORK HISTORY

WORK DAY START	06:00 AM
PLANT START-UP	06:00 AM
START SOIL PROCESSING	10:52 AM
LUNCH START	11:30 AM

WORK DAY END	05:30 PM
PLANT SHUT-DOWN	05:30 PM
END SOIL PROCESSING	02:31 PM
LUNCH PERIOD	0.0 hr

WORK HOURS	11.5 hr
AVAILABLE HOURS	11.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	3.43 hr
DOWN-TIME	8.07 hr
TOTAL SYSTEM PAUSE	6.35 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	4.88 hr
SHUT-DOWN	2.98 hr
PLANT PERFORMANCE	29.8%
PRODUCTIVITY	29.8%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 753
 NONPROCESS RECORDS (Test, calibration, etc) 5

20-SEC PROCESS RECORDS

TOTAL SORT	617	1 MD>0 & MND=0
NO SORT	449	AD=0 & MD=0 & MND>0
SOME SORT	167	AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0	
0<AD<1kBq & MD>0	0	UNEXPLAIN
AD=0 & MD	0	TIME
AD<0 & MD	1	11:29:42
ACT_P <5 kBq	32	23.5%
		11:17

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS

6,170

11:30

2-SEC RECORDS WITH SORTS

136 (ACT_P > 0 kBq)

14:32

2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	34	87.2%
3 DETECTORS	5	12.8%
4 DETECTORS	0	0.0%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%

TOTAL 39

NET 2-SEC RECORDS WITH SORTS

97

2-SEC PERIODS WITH NO SORTS

6,073

AVG TIME BETWEEN 2-SEC SORTS

127.2 sec

1-GATE SORTS	70	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT FREQ%	ACT_P	
DETECTR	SORTS	FREQ%	(Bq)	(#) (Bq/kg)	(Bq)	(#)	(kBq)	
1	4	5.7%	-14000	0	-261	4000	14 10.3%	4
2	10	14.3%	-12000	0	-224	8000	54 39.7%	8
3	12	17.1%	-10000	3	-187	12000	22 16.2%	12
4	12	17.1%	-8000	3	-149	16000	11 8.1%	16
5	13	18.6%	-6000	2	-112	20000	3 2.2%	20
6	10	14.3%	-4000	7	-75	24000	9 6.6%	24
7	7	10.0%	-2000	18	-37	28000	2 1.5%	28
8	2	2.9%	0	49	0	32000	3 2.2%	32
TOTAL	70		2000	98	37	36000	0 0.0%	36
			4000	138	75	40000	5 3.7%	40
2-GATE SORTS	66		6000	141	112	44000	2 1.5%	44
DETECTR	SORTS	FREQ%	8000	73	149	48000	1 0.7%	48
8			10000	44	187	52000	1 0.7%	52
9	9	13.6%	12000	26	224	56000	2 1.5%	56
10	11	16.7%	14000	10	261	60000	0 0.0%	60
11	15	22.7%	16000	7	299	64000	3 2.2%	64
12	11	16.7%	18000	3	336	68000	1 0.7%	68
13	12	18.2%	20000	0	373	72000	0 0.0%	72
14	5	7.6%	22000	0	410	76000	0 0.0%	76
15	3	4.5%	24000	0	448	80000	0 0.0%	80
TOTAL	66		26000	0	485	84000	1 0.7%	84
			>28000	0	0	>84000	2 1.5%	>84
			TOTAL	622		TOTAL	136	

SUMMARY TOTALS

HOT PARTICLE EVENTS	134
MULTIPARTICLE EVENTS	150
DISTRIBUTED EVENTS	83

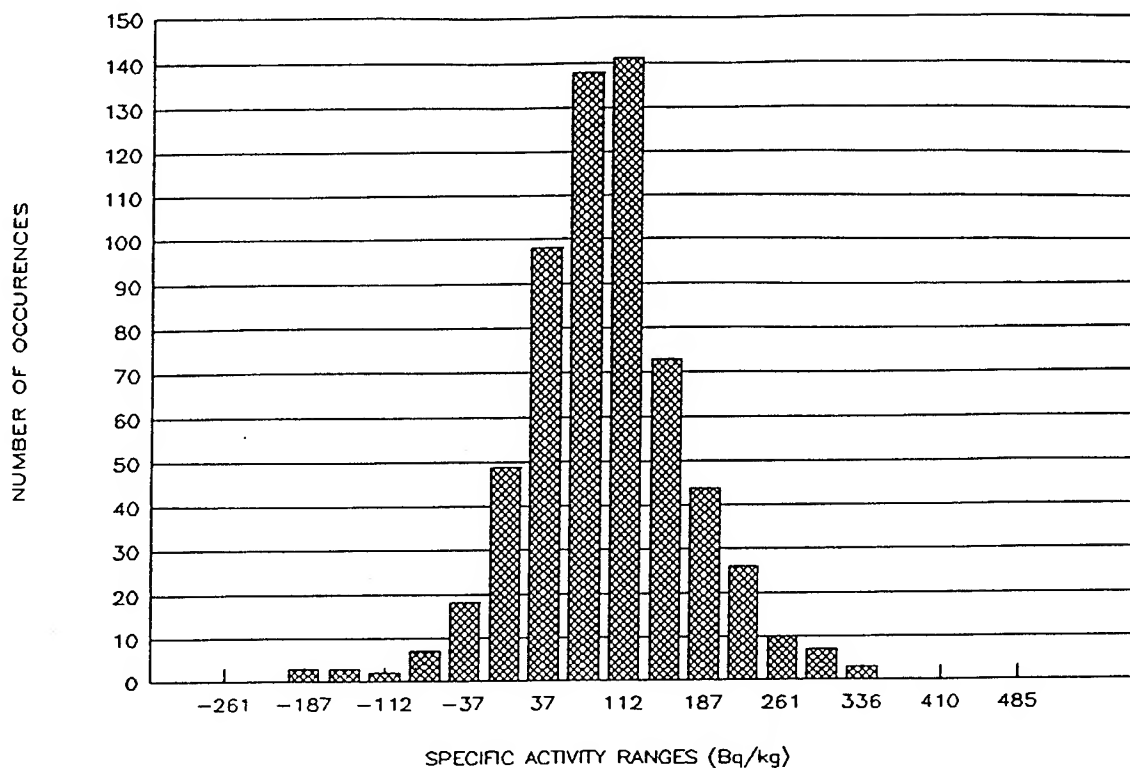
SORTS BY ONE GATE ONLY	70
SORTS BY TWO GATES	66

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

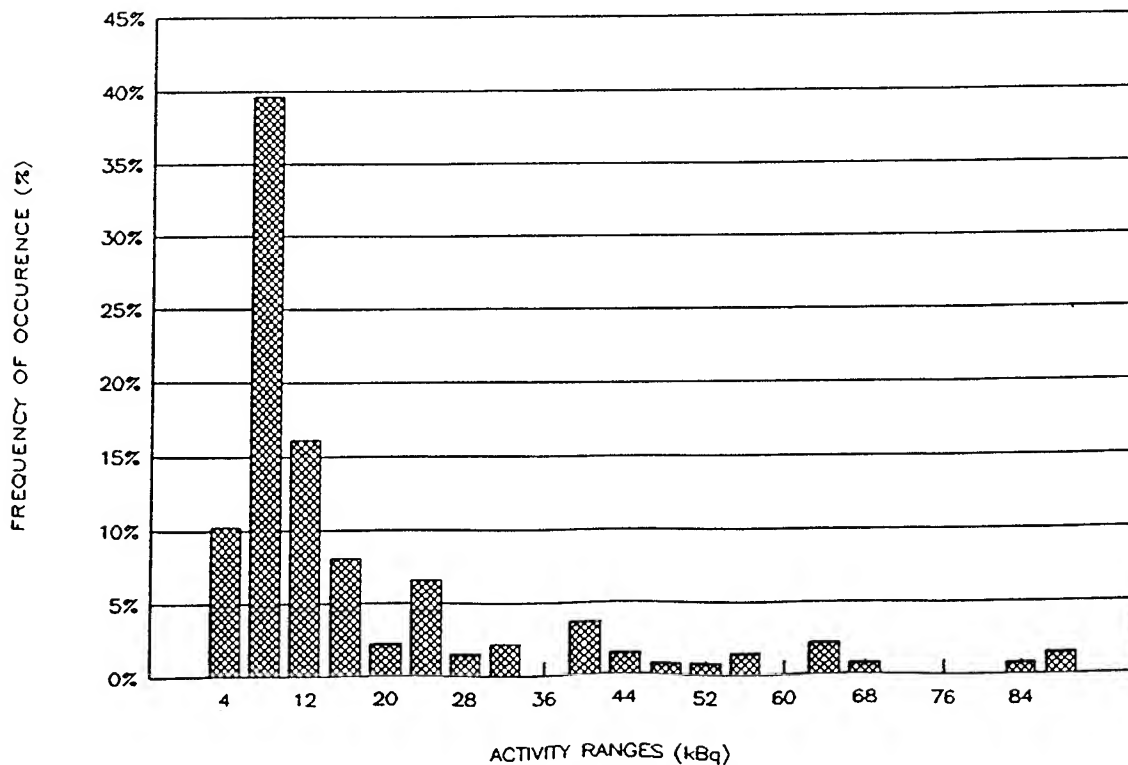
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 23-Mar-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 23-Mar-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 22-Mar-93

AVERAGE BACKGROUND COUNT RATE 0.70 ± 0.03 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	3.59 tons	100.3 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	46.2 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		96.5%
EQUIVALENT SOIL-IN-GROUND	2.84 yd ³	79.5 yd ³ 82.4 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	18,406 kBq
MAXIMUM/SORT	825 kBq
MINIMUM/SORT	2.1 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

	9,579 kBq	4,211 kBq
MAXIMUM/SORT	644 kBq	18 kBq
MINIMUM/SORT	0 Bq	-9 kBq
SPECIFIC ACTIVITY	2,671 Bq/kg	42 Bq/kg

WORK HISTORY

WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:17 AM	END SOIL PROCESSING	05:10 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.5 hr
AVAILABLE HOURS	11.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.77 hr
DOWN-TIME	0.73 hr
TOTAL SYSTEM PAUSE	0.40 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.30 hr
SHUT-DOWN	0.33 hr
PLANT PERFORMANCE	93.7%
PRODUCTIVITY	93.7%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 3,057

NONPROCESS RECORDS (Test, calibration, etc) 25

20-SEC PROCESS RECORDS

TOTAL SORT	1,939	47 MD>0 & MND=0
NO SORT	1,239	AD=0 & MD=0 & MND>0
SOME SORT	653	AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0	
0<AD<1kBq & MD>0	1	UNEXPLAIN PAUSE
AD=0 & MD	0	TIME TIME
AD<0 & MD	0	15:09:13 05:53
ACT_P <5 kBq	381	34.1%

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 19,390
 2-SEC RECORDS WITH SORTS 1,118 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 264 83.0%
 3 DETECTORS 45 14.2%
 4 DETECTORS 7 2.2%
 5 DETECTORS 1 0.3%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 318
 NET 2-SEC RECORDS WITH SORTS 800
 2-SEC PERIODS WITH NO SORTS 18,590
 AVG TIME BETWEEN 2-SEC SORTS 48.5 sec

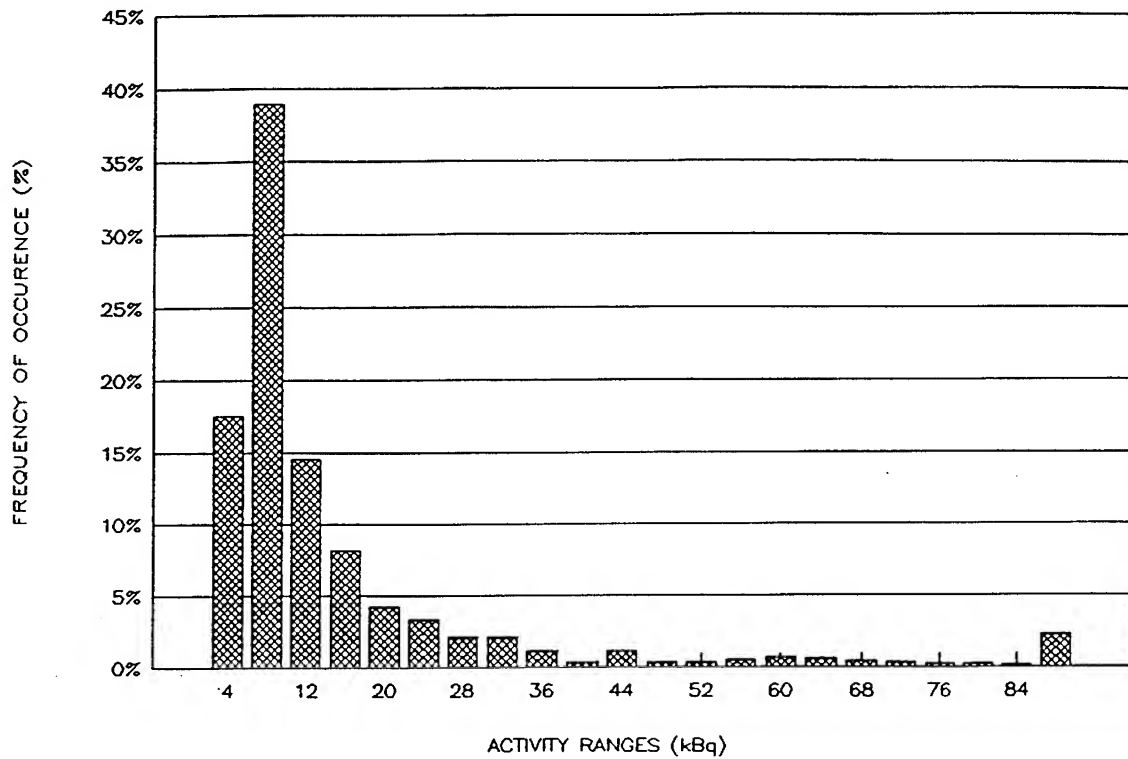
1-GATE SORTS	577	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	9	1.6%	-14000	3	-261	4000	196	17.5%
2	41	7.1%	-12000	1	-224	8000	436	39.0%
3	85	14.7%	-10000	6	-187	12000	163	14.6%
4	116	20.1%	-8000	9	-149	16000	91	8.1%
5	124	21.5%	-6000	13	-112	20000	47	4.2%
6	105	18.2%	-4000	54	-75	24000	37	3.3%
7	77	13.3%	-2000	155	-37	28000	23	2.1%
8	20	3.5%	0	367	0	32000	23	2.1%
TOTAL	577		2000	467	37	36000	13	1.2%
			4000	350	75	40000	4	0.4%
2-GATE SORTS	541	6000	268	112	44000	13	1.2%	44
DETECTR	SORTS	FREQ%	8000	123	149	48000	4	0.4%
8			10000	79	187	52000	4	0.4%
9	22	4.1%	12000	29	224	56000	6	0.5%
10	64	11.8%	14000	18	261	60000	8	0.7%
11	98	18.1%	16000	6	299	64000	7	0.6%
12	115	21.3%	18000	14	336	68000	5	0.4%
13	110	20.3%	20000	2	373	72000	4	0.4%
14	86	15.9%	22000	0	410	76000	3	0.3%
15	46	8.5%	24000	0	448	80000	3	0.3%
TOTAL	541		26000	0	485	84000	2	0.2%
			>28000	0	0	>84000	26	2.3%
			TOTAL	1964		TOTAL	1118	
SUMMARY TOTALS								
HOT PARTICLE EVENTS	1081				SORTS BY ONE GATE ONLY	577		
MULTIPARTICLE EVENTS	861				SORTS BY TWO GATES	541		
DISTRIBUTED EVENTS	3412							

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

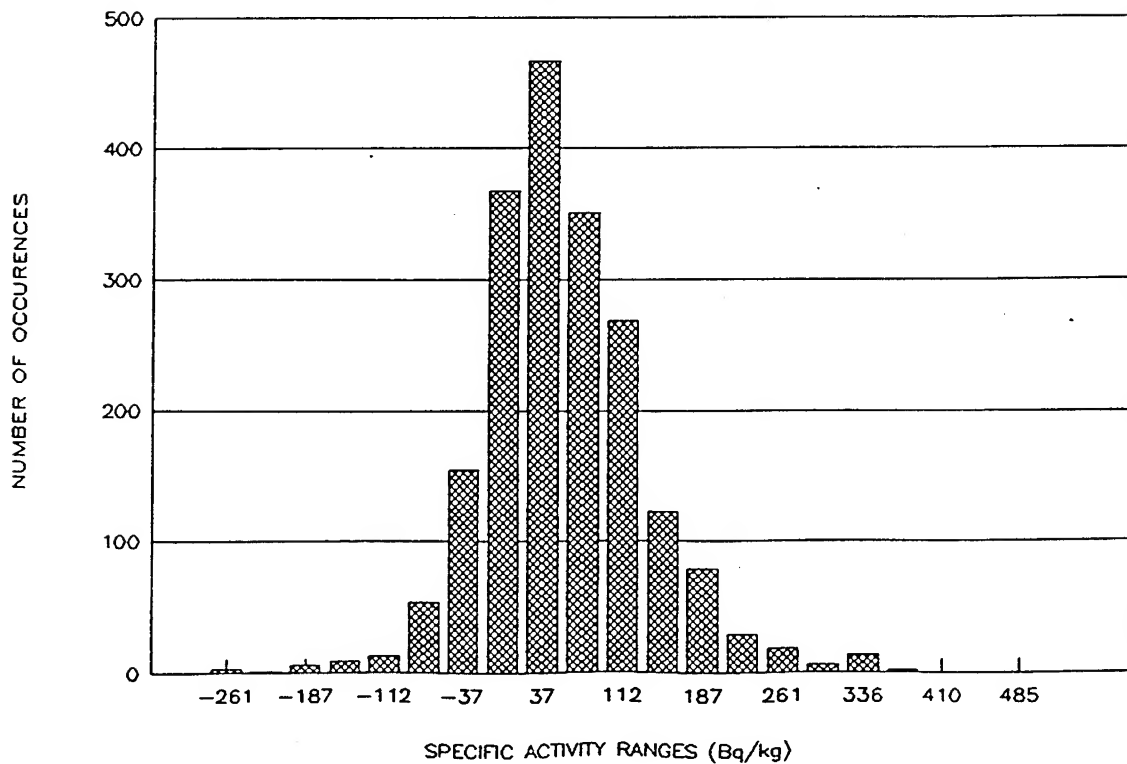
JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 22-Mar-93



CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 22-Mar-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 22-Mar-93

AVERAGE BACKGROUND COUNT RATE 0.79 \pm 0.04 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN	
MASS TOTAL	5.13 tons	98.7 tons	
MAXIMUM/SORT	53.6 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	46.9 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			95.1%
EQUIVALENT SOIL-IN-GROUND	4.06 yd ³	78.3 yd ³	82.3 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	16,449 kBq
MAXIMUM/SORT	772 kBq
MINIMUM/SORT	2.2 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

	10,975 kBq	9,062 kBq
MAXIMUM/SORT	598 kBq	18 kBq
MINIMUM/SORT	0 Bq	-9 kBq
SPECIFIC ACTIVITY	2,141 Bq/kg	92 Bq/kg

WORK HISTORY

WORK DAY START	06:00 AM
PLANT START-UP	06:00 AM
START SOIL PROCESSING	06:17 AM
LUNCH START	11:30 AM

WORK DAY END	05:30 PM
PLANT SHUT-DOWN	05:30 PM
END SOIL PROCESSING	05:10 PM
LUNCH PERIOD	0.0 hr

WORK HOURS	11.5 hr
AVAILABLE HOURS	11.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.77 hr
DOWN-TIME	0.73 hr
TOTAL SYSTEM PAUSE	0.40 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.30 hr
SHUT-DOWN	0.32 hr
PLANT PERFORMANCE	93.6%
PRODUCTIVITY	93.6%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 2,944

NONPROCESS RECORDS (Test, calibration, etc) 25

20-SEC PROCESS RECORDS

TOTAL SORT	1,938
NO SORT	74 MD>0 & MND=0
SOME SORT	1,057 AD=0 & MD=0 & MND>0
UNEXPLAINED RECORDS	807 AD>0&0<MD<MNDmax&MND<MNDmax
	0

0<AD<1kBq & MD>0	1
AD=0 & MD	0
AD<0 & MD	0

ACT_P <5 kBq 264 26.2%

UNEXPLAIN	PAUSE
TIME	TIME
07:48:53	05:53

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 19,380
 2-SEC RECORDS WITH SORTS 1,006 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	226	81.3%
3 DETECTORS	40	14.4%
4 DETECTORS	10	3.6%
5 DETECTORS	1	0.4%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	278	
NET 2-SEC RECORDS WITH SORTS	728	
2-SEC PERIODS WITH NO SORTS	18,652	
AVG TIME BETWEEN 2-SEC SORTS	53.2 sec	

1-GATE SORTS DETECTR	SORTS	519 FREQ%	ACT_ND (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT FREQ%	ACT_P (kBq)
1	31	6.0%	-14000	0	-261	4000	116 11.5%	4
2	75	14.5%	-12000	2	-224	8000	405 40.3%	8
3	97	18.7%	-10000	5	-187	12000	175 17.4%	12
4	94	18.1%	-8000	8	-149	16000	85 8.4%	16
5	113	21.8%	-6000	4	-112	20000	41 4.1%	20
6	70	13.5%	-4000	12	-75	24000	41 4.1%	24
7	33	6.4%	-2000	37	-37	28000	26 2.6%	28
8	6	1.2%	0	183	0	32000	20 2.0%	32
TOTAL	519		2000	277	37	36000	18 1.8%	36
			4000	378	75	40000	10 1.0%	40
2-GATE SORTS		487	6000	378	112	44000	8 0.8%	44
DETECTR	SORTS	FREQ%	8000	332	149	48000	7 0.7%	48
8			10000	182	187	52000	6 0.6%	52
9	60	12.3%	12000	85	224	56000	7 0.7%	56
10	80	16.4%	14000	54	261	60000	2 0.2%	60
11	90	18.5%	16000	17	299	64000	7 0.7%	64
12	98	20.1%	18000	8	336	68000	4 0.4%	68
13	90	18.5%	20000	2	373	72000	5 0.5%	72
14	50	10.3%	22000	0	410	76000	1 0.1%	76
15	19	3.9%	24000	0	448	80000	0 0.0%	80
TOTAL	487		26000	0	485	84000	2 0.2%	84
			>28000	0	0	>84000	20 2.0%	>84
			TOTAL	1964		TOTAL	1006	

SUMMARY TOTALS

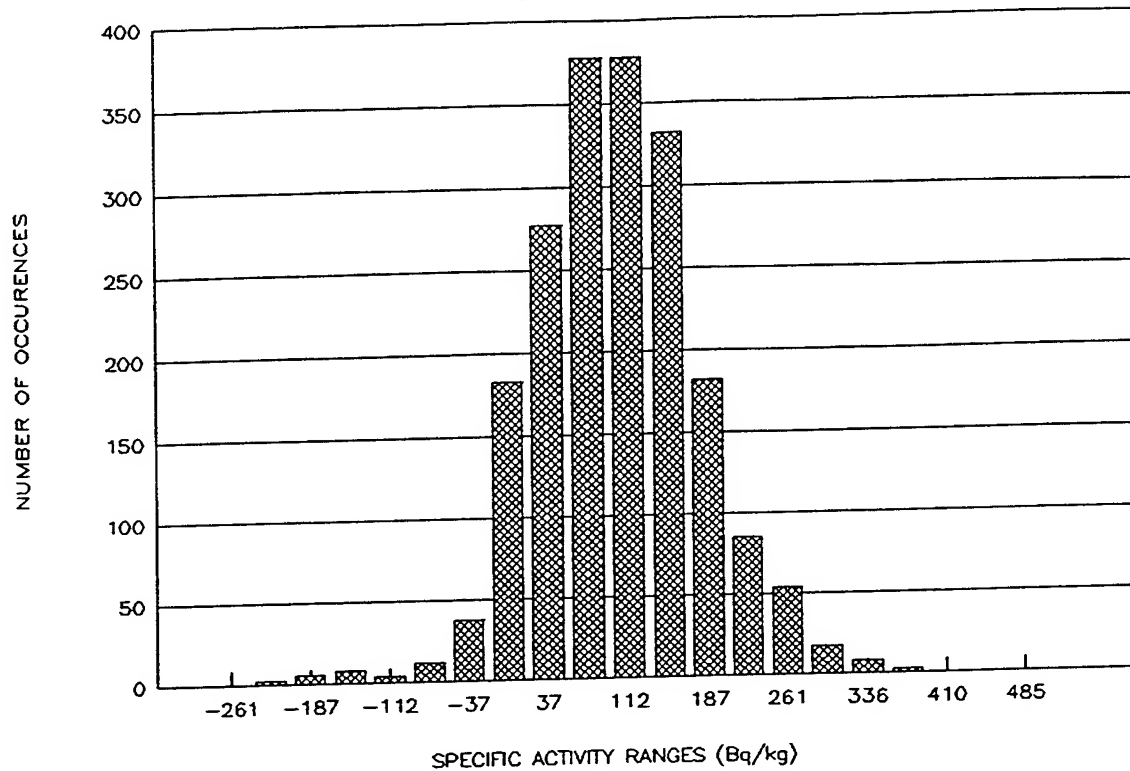
HOT PARTICLE EVENTS	978	SORTS BY ONE GATE ONLY	519
MULTIPARTICLE EVENTS	1462	SORTS BY TWO GATES	487
DISTRIBUTED EVENTS	5206		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

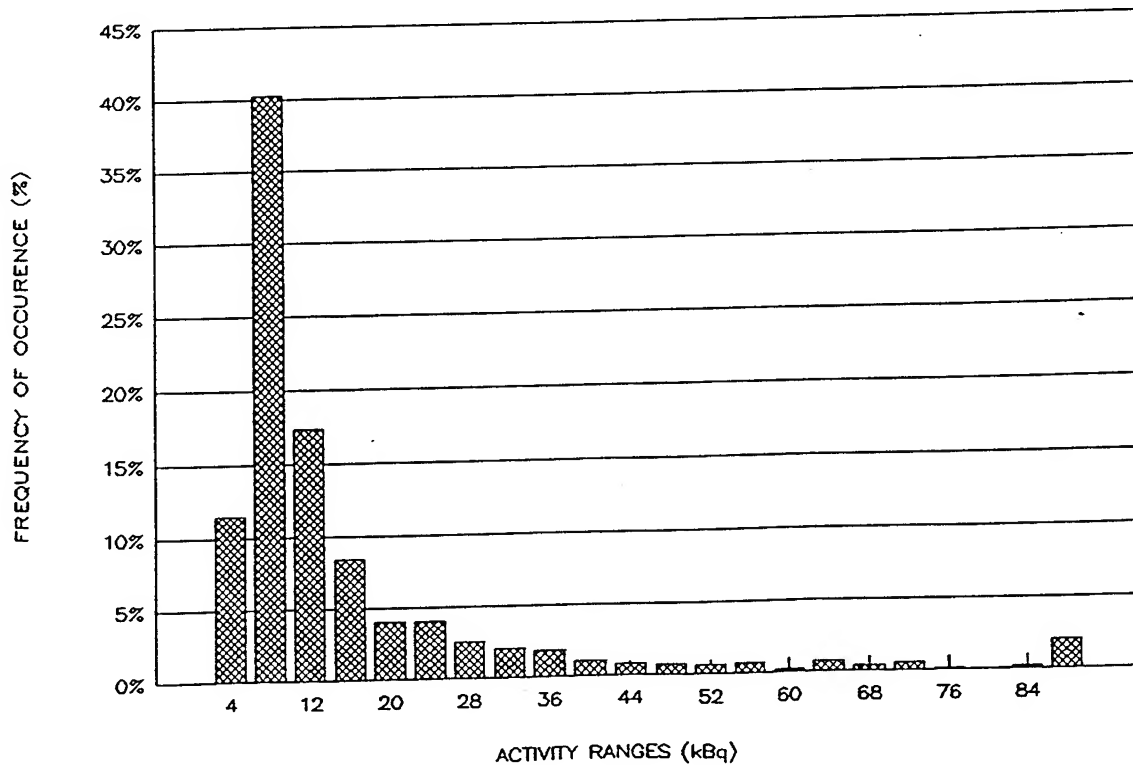
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 22-Mar-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 22-Mar-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 20-Mar-93

AVERAGE BACKGROUND COUNT RATE 0.69 ± 0.03 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.49 tons	49.9 tons
MAXIMUM/SORT	56.2 kg	53.6 kg
MINIMUM/SORT	0.7 kg	48.9 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		99.0%
EQUIVALENT SOIL-IN-GROUND	0.39 yd ³	39.6 yd ³ 40.0 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	5,043 kBq
MAXIMUM/SORT	186 kBq
MINIMUM/SORT	2.8 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

	2,281 kBq	1,238 kBq
MAXIMUM/SORT	133 kBq	17 kBq
MINIMUM/SORT	-21618 Bq	-9 kBq
SPECIFIC ACTIVITY	4,640 Bq/kg	25 Bq/kg

WORK HISTORY

WORK DAY START	05:50 AM	WORK DAY END	05:30 PM
PLANT START-UP	05:55 AM	PLANT SHUT-DOWN	11:37 AM
START SOIL PROCESSING	06:19 AM	END SOIL PROCESSING	11:33 AM
LUNCH START	12:00 PM	LUNCH PERIOD	0.5 hr

WORK HOURS	11.2 hr
AVAILABLE HOURS	5.7 hr
ACTUAL PROCESS HOURS (total 20-sec records)	5.23 hr
DOWN-TIME	0.47 hr
TOTAL SYSTEM PAUSE	0.41 hr
NONAVAILABLE HOURS	5.5 hr
START-UP	0.40 hr
SHUT-DOWN	0.06 hr
PLANT PERFORMANCE	91.7%
PRODUCTIVITY	46.8%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)

1,290

NONPROCESS RECORDS (Test, calibration, etc)

14

20-SEC PROCESS RECORDS

941

TOTAL SORT	2 MD>0 & MND=0
NO SORT	657 AD=0 & MD=0 & MND>0
SOME SORT	282 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	0
AD=0 & MD	1
AD<0 & MD	1
ACT_P <5 kBq	100 28.7%

UNEXPLAIN	PAUSE
TIME	TIME
09:05:34	05:55
09:06:11	09:04

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 9,410
 2-SEC RECORDS WITH SORTS 349 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 85 81.7%
 3 DETECTORS 17 16.3%
 4 DETECTORS 2 1.9%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 104
 NET 2-SEC RECORDS WITH SORTS 245
 2-SEC PERIODS WITH NO SORTS 9,165
 AVG TIME BETWEEN 2-SEC SORTS 76.8 sec

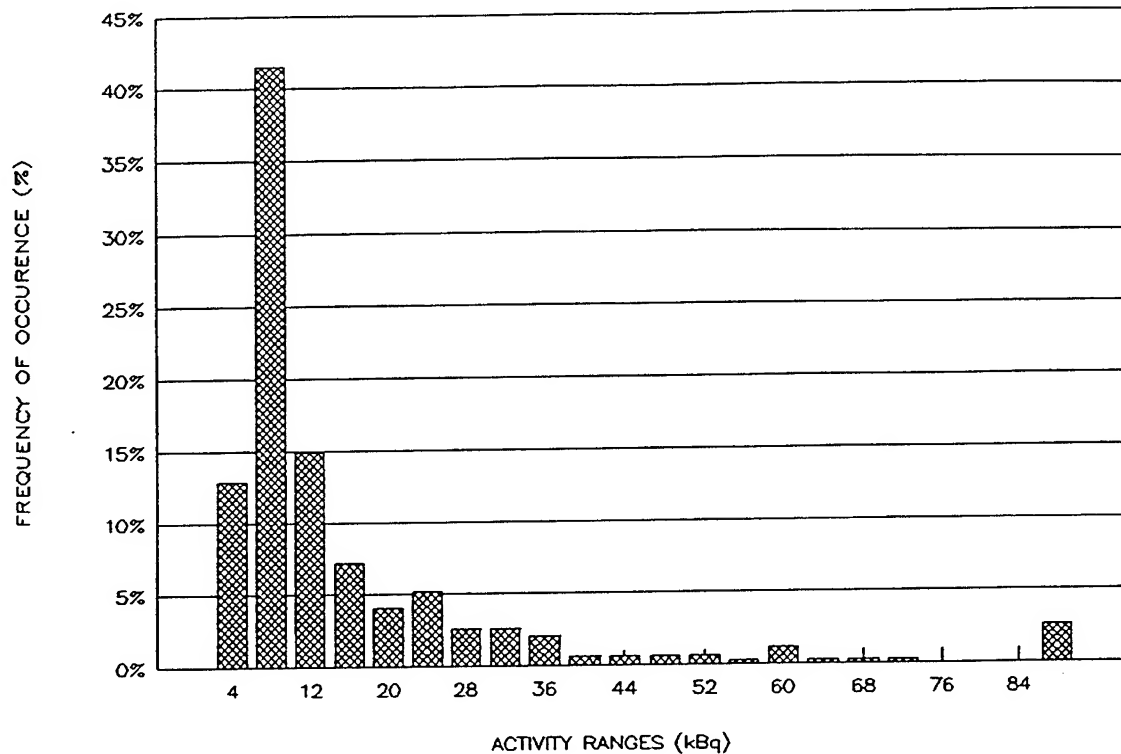
1-GATE SORTS	176	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	3	1.7%	-14000	0	-261	4000	45	12.9%
2	6	3.4%	-12000	1	-224	8000	145	41.5%
3	33	18.8%	-10000	1	-187	12000	52	14.9%
4	35	19.9%	-8000	4	-149	16000	25	7.2%
5	39	22.2%	-6000	13	-112	20000	14	4.0%
6	26	14.8%	-4000	40	-75	24000	18	5.2%
7	24	13.6%	-2000	132	-37	28000	9	2.6%
8	10	5.7%	0	190	0	32000	9	2.6%
TOTAL	176		2000	202	37	36000	7	2.0%
			4000	170	75	40000	2	0.6%
2-GATE SORTS	173		6000	93	112	44000	2	0.6%
DETECTR	SORTS	FREQ%	8000	59	149	48000	2	0.6%
8			10000	33	187	52000	2	0.6%
9	5	2.9%	12000	13	224	56000	1	0.3%
10	15	8.7%	14000	3	261	60000	4	1.1%
11	38	22.0%	16000	0	299	64000	1	0.3%
12	38	22.0%	18000	1	336	68000	1	0.3%
13	35	20.2%	20000	0	373	72000	1	0.3%
14	21	12.1%	22000	0	410	76000	0	0.0%
15	21	12.1%	24000	0	448	80000	0	0.0%
TOTAL	173		26000	0	485	84000	0	0.0%
			>28000	0	0	>84000	9	2.6%
			TOTAL	955		TOTAL	349	
SUMMARY TOTALS								
HOT PARTICLE EVENTS			337		SORTS BY ONE GATE ONLY		176	
MULTIPARTICLE EVENTS			227		SORTS BY TWO GATES		173	
DISTRIBUTED EVENTS			166					

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

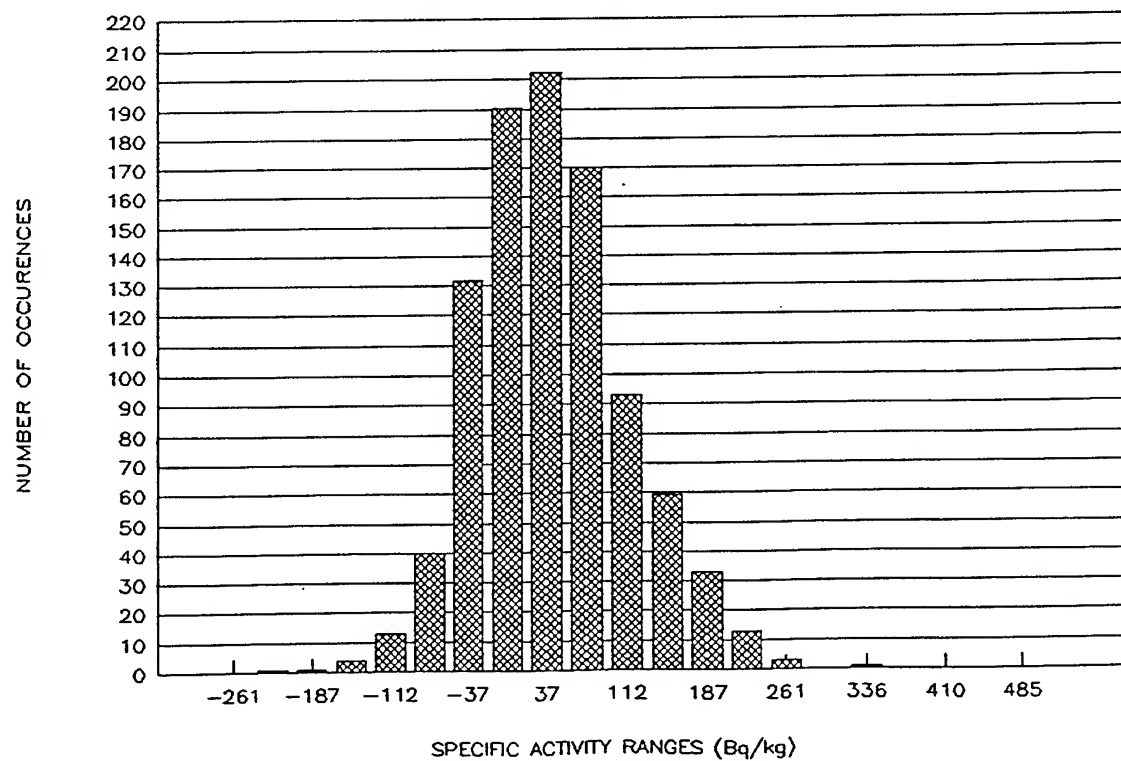
JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 20-Mar-93



CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 20-Mar-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 20-Mar-93

AVERAGE BACKGROUND COUNT RATE	0.77 ± 0.06 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	0.59 tons	50.2 tons	
MAXIMUM/SORT	53.6 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	45.5 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			98.8%
EQUIVALENT SOIL-IN-GROUND	0.46 yd ³	39.8 yd ³	40.3 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)		
TOTAL	8,644 kBq	
MAXIMUM/SORT	431 kBq	
MINIMUM/SORT	2.3 kBq	
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY		
MAXIMUM/SORT	4,057 kBq	3,861 kBq
MINIMUM/SORT	367 kBq	17 kBq
SPECIFIC ACTIVITY	0 Bq	-7 kBq
	6,915 Bq/kg	77 Bq/kg

WORK HISTORY		WORK DAY END	05:30 PM
WORK DAY START	05:50 AM	PLANT SHUT-DOWN	11:37 AM
PLANT START-UP	05:55 AM	END SOIL PROCESSING	11:34 AM
START SOIL PROCESSING	06:19 AM	LUNCH PERIOD	0.5 hr
LUNCH START	12:00 PM		

WORK HOURS	11.2 hr
AVAILABLE HOURS	5.7 hr
ACTUAL PROCESS HOURS (total 20-sec records)	5.27 hr
DOWN-TIME	0.43 hr
TOTAL SYSTEM PAUSE	0.39 hr
NONAVAILABLE HOURS	5.5 hr
START-UP	0.40 hr
SHUT-DOWN	0.04 hr
PLANT PERFORMANCE	92.4%
PRODUCTIVITY	47.2%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	1,392	
NONPROCESS RECORDS (Test, calibration, etc)	9	
20-SEC PROCESS RECORDS	948	
TOTAL SORT	1 MD>0 & MND=0	
NO SORT	569 AD=0 & MD=0 & MND>0	
SOME SORT	378 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS	0	
0<AD<1kBq & MD>0		UNEXPLAIN PAUSE
AD=0 & MD	0	TIME TIME
AD<0 & MD	0	None 05:55
ACT_P <5 kBq	115 25.9%	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 9,480
 2-SEC RECORDS WITH SORTS 444 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 106 84.8%
 3 DETECTORS 18 14.4%
 4 DETECTORS 1 0.8%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 125
 NET 2-SEC RECORDS WITH SORTS 319
 2-SEC PERIODS WITH NO SORTS 9,161
 AVG TIME BETWEEN 2-SEC SORTS 59.4 sec

1-GATE SORTS		226	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	5	2.2%	-14000	0	-261	4000	53	11.9%	4
2	29	12.8%	-12000	0	-224	8000	161	36.3%	8
3	47	20.8%	-10000	1	-187	12000	63	14.2%	12
4	41	18.1%	-8000	0	-149	16000	43	9.7%	16
5	39	17.3%	-6000	4	-112	20000	28	6.3%	20
6	38	16.8%	-4000	5	-75	24000	13	2.9%	24
7	23	10.2%	-2000	31	-37	28000	13	2.9%	28
8	4	1.8%	0	98	0	32000	8	1.8%	32
TOTAL	226		2000	162	37	36000	9	2.0%	36
			4000	215	75	40000	8	1.8%	40
2-GATE SORTS		218	6000	200	112	44000	6	1.4%	44
DETECTR	SORTS	FREQ%	8000	95	149	48000	3	0.7%	48
8			10000	78	187	52000	2	0.5%	52
9	13	6.0%	12000	36	224	56000	3	0.7%	56
10	42	19.3%	14000	21	261	60000	8	1.8%	60
11	33	15.1%	16000	7	299	64000	4	0.9%	64
12	44	20.2%	18000	4	336	68000	1	0.2%	68
13	41	18.8%	20000	0	373	72000	5	1.1%	72
14	34	15.6%	22000	0	410	76000	1	0.2%	76
15	11	5.0%	24000	0	448	80000	0	0.0%	80
TOTAL	218		26000	0	485	84000	0	0.0%	84
			>28000	0	0	>84000	12	2.7%	>84
			TOTAL	957		TOTAL	444		

SUMMARY TOTALS

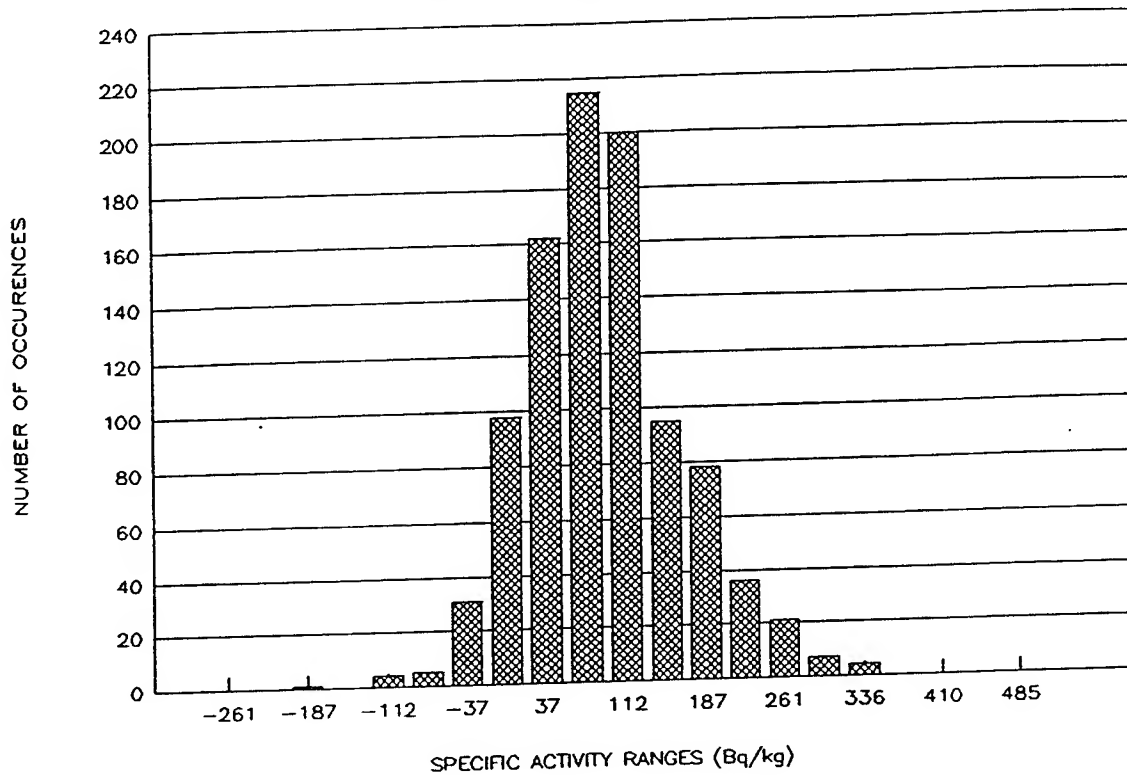
HOT PARTICLE EVENTS	426	SORTS BY ONE GATE ONLY	226
MULTIPARTICLE EVENTS	374	SORTS BY TWO GATES	218
DISTRIBUTED EVENTS	73		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

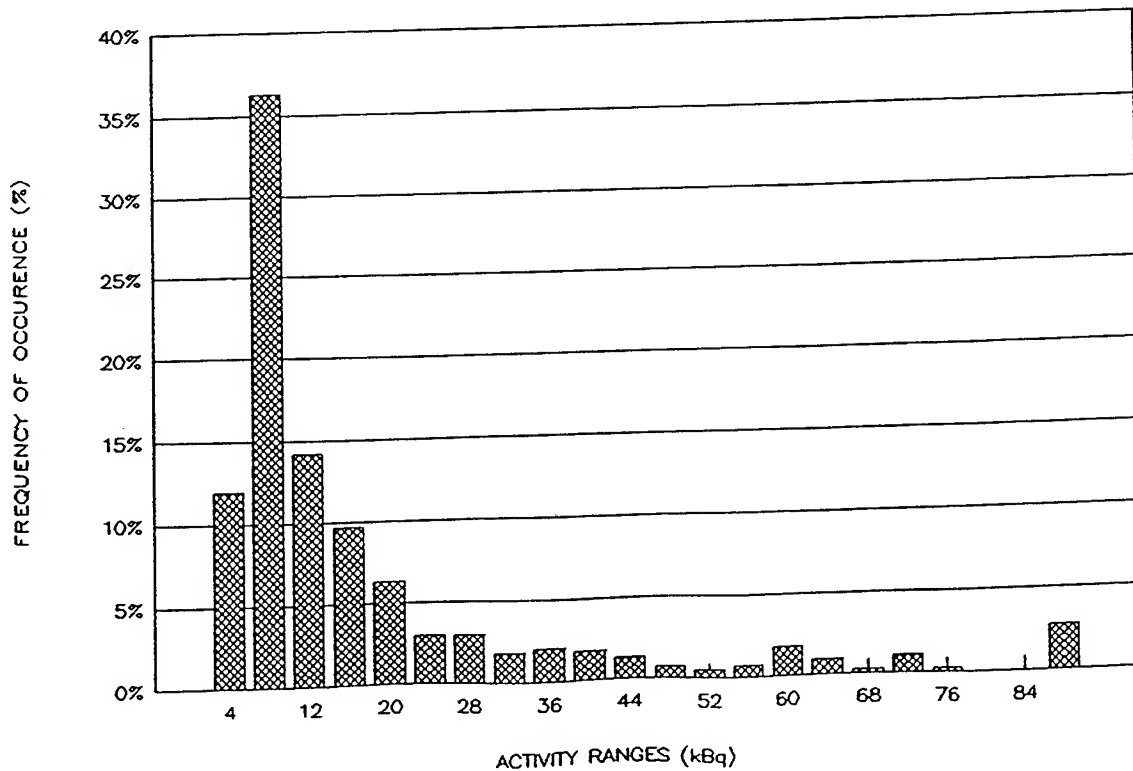
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 20-Mar-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 20-Mar-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 19-Mar-93

AVERAGE BACKGROUND COUNT RATE 0.70 \pm 0.04 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	1.18 tons	100.8 tons
MAXIMUM/SORT	56.2 kg	53.6 kg
MINIMUM/SORT	0.7 kg	45.5 kg

		98.8%
WEIGHT RECOVERY OR VOLUME RECOVERY		
EQUIVALENT SOIL-IN-GROUND	0.94 yd ³	79.9 yd ³ 80.8 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	16,871 kBq
MAXIMUM/SORT	1,320 kBq
MINIMUM/SORT	2.4 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	7,229 kBq	3,465 kBq
MAXIMUM/SORT	1034 kBq	16 kBq
MINIMUM/SORT	0 Bq	-12 kBq
SPECIFIC ACTIVITY	6,111 Bq/kg	34 Bq/kg

WORK HISTORY

WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:18 AM	END SOIL PROCESSING	05:04 PM
LUNCH START	12:00 PM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.5 hr
AVAILABLE HOURS	11.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.57 hr
DOWN-TIME	0.93 hr
TOTAL SYSTEM PAUSE	0.60 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.31 hr
SHUT-DOWN	0.42 hr
PLANT PERFORMANCE	91.9%
PRODUCTIVITY	91.9%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 2,906

NONPROCESS RECORDS (Test, calibration, etc) 8

20-SEC PROCESS RECORDS	1,903		
TOTAL SORT	3 MD>0 & MND=0		
NO SORT	1,254 AD=0 & MD=0 & MND>0		
SOME SORT	646 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	5	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	07:46:06	05:54
ACT_P <5 kBq	293 29.2%	09:43:26	06:51

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	19,030	11:14:06	11:31
2-SEC RECORDS WITH SORTS	1,003 (ACT_P >0 kBq)	13:21:09	11:32
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		16:40:09	12:23
2 DETECTORS	218 75.4%		12:24
3 DETECTORS	52 18.0%		12:26
4 DETECTORS	15 5.2%		
5 DETECTORS	3 1.0%		
6 DETECTORS	0 0.0%		
7 DETECTORS	0 0.0%		
8 DETECTORS	0 0.0%		
TOTAL	289		
NET 2-SEC RECORDS WITH SORTS	714		
2-SEC PERIODS WITH NO SORTS	18,316		
AVG TIME BETWEEN 2-SEC SORTS	53.3 sec		

1-GATE SORTS	500	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	8	1.6%	-14000	0	-261	4000	152	15.2%
2	50	10.0%	-12000	2	-224	8000	405	40.4%
3	84	16.8%	-10000	1	-187	12000	154	15.4%
4	114	22.8%	-8000	2	-149	16000	77	7.7%
5	96	19.2%	-6000	7	-112	20000	48	4.8%
6	70	14.0%	-4000	67	-75	24000	35	3.5%
7	64	12.8%	-2000	199	-37	28000	22	2.2%
8	14	2.8%	0	334	0	32000	17	1.7%
TOTAL	500		2000	432	37	36000	17	1.7%
			4000	379	75	40000	7	0.7%
			6000	256	112	44000	6	0.6%
2-GATE SORTS	503		8000	137	149	48000	5	0.5%
DETECTR	SORTS	FREQ%				52000	5	0.5%
8			10000	59	187	56000	7	0.7%
9	21	4.2%	12000	24	224	60000	6	0.6%
10	67	13.3%	14000	6	261	64000	9	0.9%
11	110	21.9%	16000	6	299	68000	6	0.6%
12	102	20.3%	18000	0	336	72000	2	0.2%
13	83	16.5%	20000	0	373	76000	2	0.2%
14	70	13.9%	22000	0	410	80000	0	0.0%
15	50	9.9%	24000	0	448	84000	2	0.2%
TOTAL	503		26000	0	485		19	1.9%
			>28000	0	0	>84000		>84
			TOTAL	1911		TOTAL	1003	

SUMMARY TOTALS

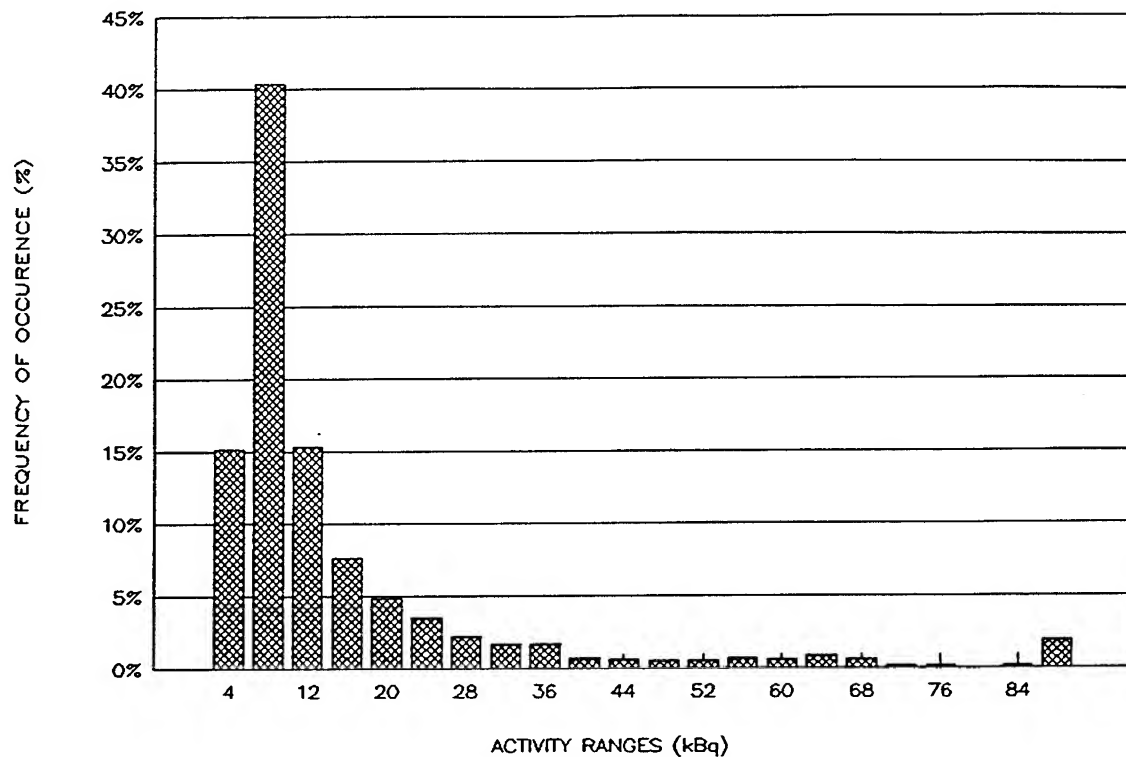
HOT PARTICLE EVENTS	990	SORTS BY ONE GATE ONLY	500
MULTIPARTICLE EVENTS	526	SORTS BY TWO GATES	503
DISTRIBUTED EVENTS	249		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
2.00 Empty belt
3.00 Test (No process soil)

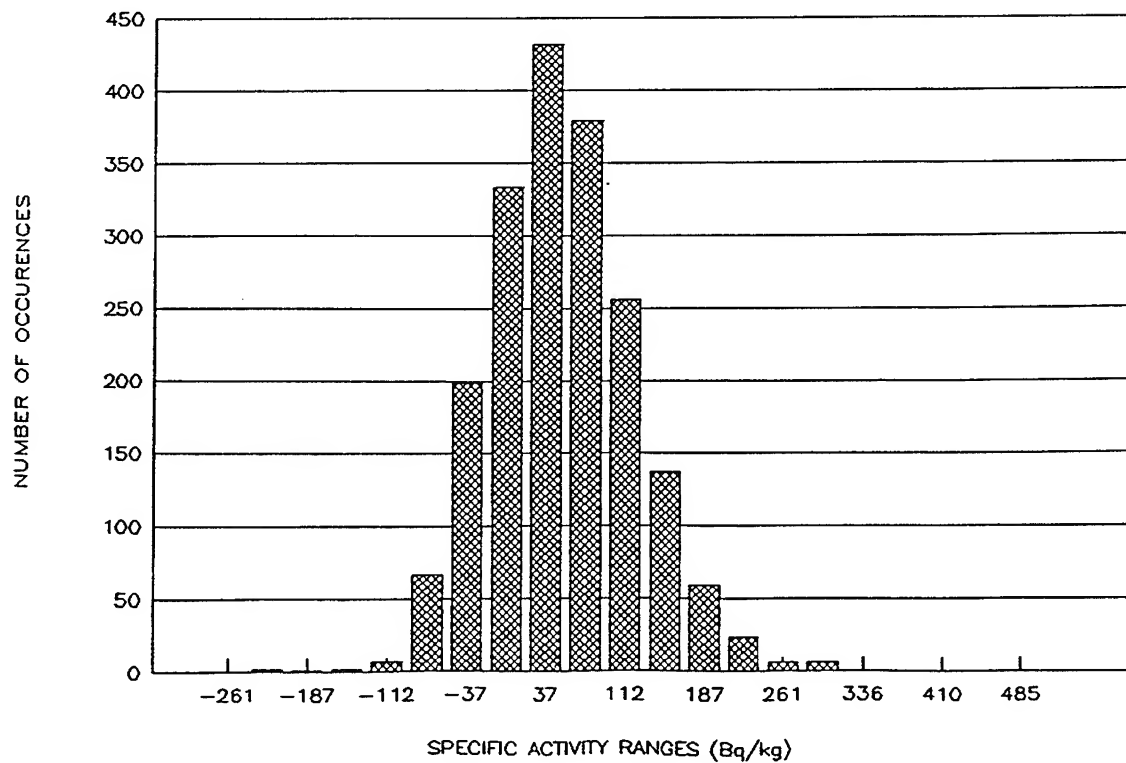
JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 19-Mar-93



CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 19-Mar-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 19-Mar-93

AVERAGE BACKGROUND COUNT RATE 0.78 \pm 0.04 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN	
MASS TOTAL	1.52 tons	100.0 tons	
MAXIMUM/SORT	56.2 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	48.2 kg	

WEIGHT RECOVERY OR VOLUME RECOVERY		98.5%
EQUIVALENT SOIL-IN-GROUND	1.21 yd ³	79.3 yd ³ 80.5 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	15,046 kBq
MAXIMUM/SORT	678 kBq
MINIMUM/SORT	2.7 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	7,421 kBq	8,736 kBq
MAXIMUM/SORT	566 kBq	18 kBq
MINIMUM/SORT	-5510 Bq	-7 kBq
SPECIFIC ACTIVITY	4,875 Bq/kg	87 Bq/kg

WORK HISTORY

WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:18 AM	END SOIL PROCESSING	05:03 PM
LUNCH START	12:00 PM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.5 hr
AVAILABLE HOURS	11.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.52 hr
DOWN-TIME	0.98 hr
TOTAL SYSTEM PAUSE	0.64 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.31 hr
SHUT-DOWN	0.43 hr
PLANT PERFORMANCE	91.5%
PRODUCTIVITY	91.5%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 2,695

NONPROCESS RECORDS (Test, calibration, etc) 10

20-SEC PROCESS RECORDS

TOTAL SORT	1,894
NO SORT	8 MD>0 & MND=0
SOME SORT	1,067 AD=0 & MD=0 & MND>0
UNEXPLAINED RECORDS	819 AD>0&0<MD<MNDmax&MND<MNDmax
0<AD<1kBq & MD>0	0

AD=0 & MD	1	UNEXPLAIN	PAUSE
AD<0 & MD	2	TIME	TIME
ACT_P <5 kBq	211 26.3%	11:48:47	05:54
		12:25:41	06:51

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	18,940	12:32:04	12:24
2-SEC RECORDS WITH SORTS	801 (ACT_P >0 kBq)	12:33:08	12:26
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		12:35:38	12:30
2 DETECTORS	183 81.7%		12:32
3 DETECTORS	38 17.0%		12:33
4 DETECTORS	3 1.3%		
5 DETECTORS	0 0.0%		
6 DETECTORS	0 0.0%		
7 DETECTORS	0 0.0%		
8 DETECTORS	0 0.0%		
TOTAL	224		
NET 2-SEC RECORDS WITH SORTS	577		
2-SEC PERIODS WITH NO SORTS	18,363		
AVG TIME BETWEEN 2-SEC SORTS	65.6 sec		

1-GATE SORTS	427	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P	
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)	
1	20	4.7%	-14000	1	-261	4000	96	12.0%	4
2	75	17.6%	-12000	0	-224	8000	331	41.3%	8
3	73	17.1%	-10000	1	-187	12000	121	15.1%	12
4	86	20.1%	-8000	3	-149	16000	71	8.9%	16
5	79	18.5%	-6000	4	-112	20000	42	5.2%	20
6	49	11.5%	-4000	12	-75	24000	18	2.2%	24
7	40	9.4%	-2000	49	-37	28000	23	2.9%	28
8	5	1.2%	0	127	0	32000	16	2.0%	32
TOTAL	427		2000	239	37	36000	11	1.4%	36
			4000	422	75	40000	4	0.5%	40
2-GATE SORTS	374		6000	397	112	44000	6	0.7%	44
DETECTR	SORTS	FREQ%	8000	329	149	48000	8	1.0%	48
8			10000	187	187	52000	2	0.2%	52
9	40	10.7%	12000	87	224	56000	4	0.5%	56
10	50	13.4%	14000	33	261	60000	9	1.1%	60
11	78	20.9%	16000	8	299	64000	8	1.0%	64
12	84	22.5%	18000	4	336	68000	1	0.1%	68
13	56	15.0%	20000	1	373	72000	0	0.0%	72
14	44	11.8%	22000	0	410	76000	0	0.0%	76
15	22	5.9%	24000	0	448	80000	2	0.2%	80
TOTAL	374		26000	0	485	84000	2	0.2%	84
			>28000	0	0	>84000	26	3.2%	>84
			TOTAL	1904		TOTAL	801		

SUMMARY TOTALS

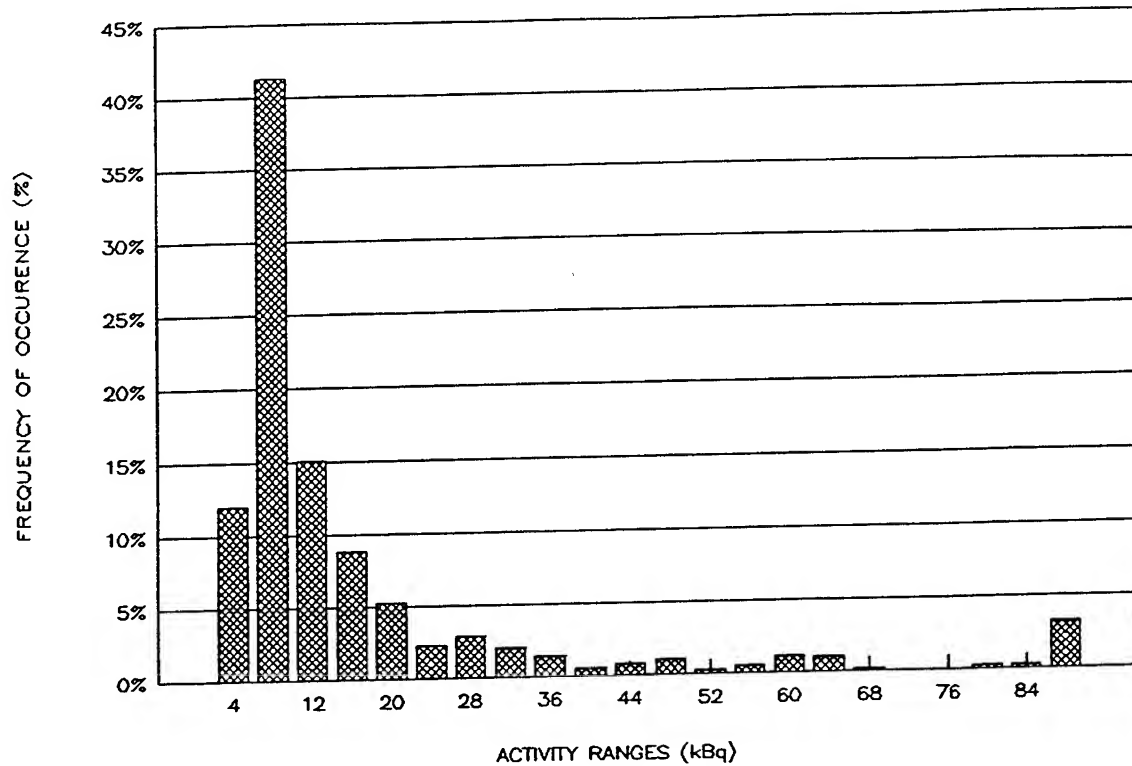
HOT PARTICLE EVENTS	767	SORTS BY ONE GATE ONLY	427
MULTIPARTICLE EVENTS	842	SORTS BY TWO GATES	374
DISTRIBUTED EVENTS	653		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

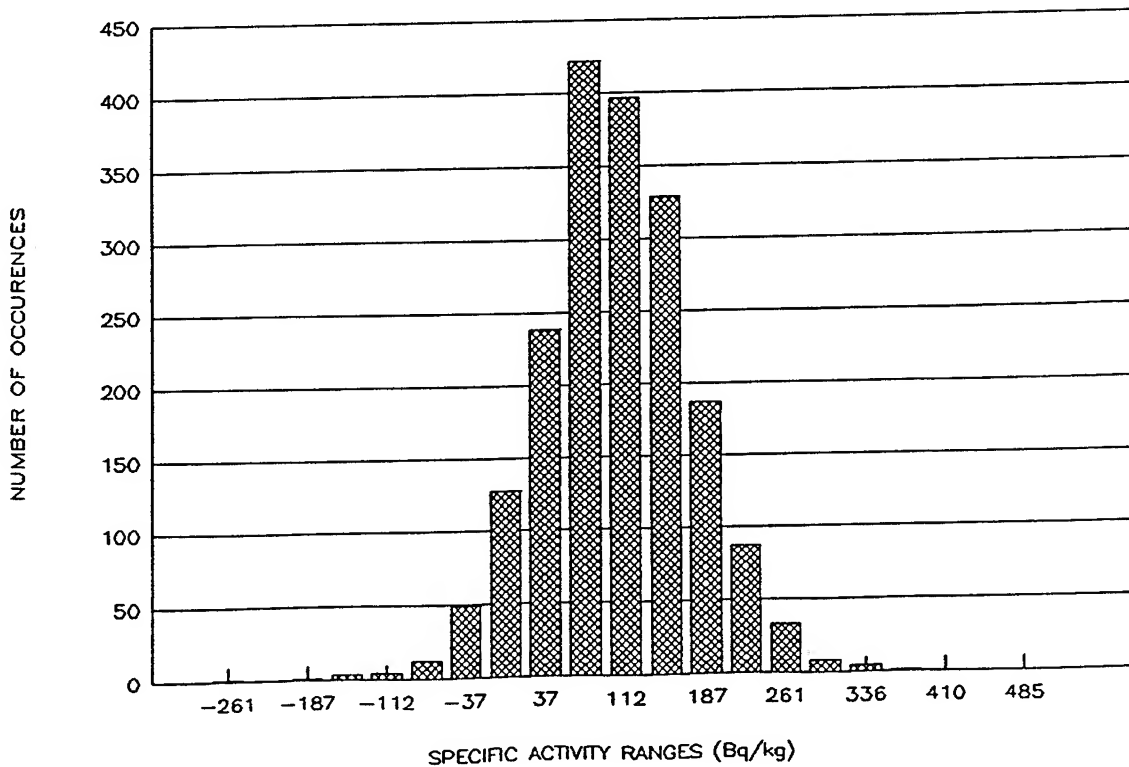
JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 19-Mar-93



CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 19-Mar-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 18-Mar-93

AVERAGE BACKGROUND COUNT RATE 0.70 ± 0.02 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.78 tons	101.5 tons
MAXIMUM/SORT	4.7 kg	53.6 kg
MINIMUM/SORT	0.7 kg	48.9 kg

		99.2%
WEIGHT RECOVERY OR VOLUME RECOVERY		
EQUIVALENT SOIL-IN-GROUND	0.62 yd ³	80.4 yd ³ 81.1 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	9,917 kBq
MAXIMUM/SORT	303 kBq
MINIMUM/SORT	2.0 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	4,486 kBq	1,928 kBq
MAXIMUM/SORT	233 kBq	15 kBq
MINIMUM/SORT	0.8q	-9 kBq
SPECIFIC ACTIVITY	5,743 Bq/kg	19 Bq/kg

WORK HISTORY

WORK DAY START	05:55 AM	WORK DAY END	05:30 PM
PLANT START-UP	05:55 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:27 AM	END SOIL PROCESSING	05:02 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.6 hr
AVAILABLE HOURS	11.6 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.60 hr
DOWN-TIME	0.98 hr
TOTAL SYSTEM PAUSE	0.52 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.54 hr
SHUT-DOWN	0.45 hr
PLANT PERFORMANCE	91.5%
PRODUCTIVITY	91.5%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 2,636
 NONPROCESS RECORDS (Test, calibration, etc) 4

20-SEC PROCESS RECORDS

TOTAL SORT	1,908	0 MD>0 & MND=0
NO SORT	1,320	AD=0 & MD=0 & MND>0
SOME SORT	588	AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0	
0<AD<1kBq & MD>0	3	UNEXPLAIN
AD=0 & MD	0	TIME
AD<0 & MD	0	10:35:30
ACT_P <5 kBq	212	12:57:30
	29.1%	PAUSE
		TIME
		05:55

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS

19,080

14:35:10

2-SEC RECORDS WITH SORTS

728 (ACT_P >0 kBq)

2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	168	88.0%
3 DETECTORS	21	11.0%
4 DETECTORS	2	1.0%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%

TOTAL 191

NET 2-SEC RECORDS WITH SORTS

537

2-SEC PERIODS WITH NO SORTS

18,543

AVG TIME BETWEEN 2-SEC SORTS

71.1 sec

1-GATE SORTS	363	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)
1	2	0.6%	-14000	0	-261	4000	105 14.4%
2	24	6.6%	-12000	1	-224	8000	305 41.9%
3	49	13.5%	-10000	0	-187	12000	115 15.8%
4	73	20.1%	-8000	1	-149	16000	55 7.6%
5	81	22.3%	-6000	11	-112	20000	32 4.4%
6	65	17.9%	-4000	66	-75	24000	27 3.7%
7	52	14.3%	-2000	208	-37	28000	18 2.5%
8	17	4.7%	0	442	0	32000	16 2.2%
TOTAL	363		2000	524	37	36000	6 0.8%
			4000	368	75	40000	8 1.1%
			6000	199	112	44000	4 0.5%
2-GATE SORTS	365		8000	51	149	48000	3 0.4%
DETECTR	SORTS	FREQ%	10000	25	187	52000	4 0.5%
8			12000	11	224	56000	5 0.7%
9	6	1.6%	14000	4	261	60000	2 0.3%
10	35	9.6%	16000	1	299	64000	4 0.5%
11	62	17.0%	18000	0	336	68000	2 0.3%
12	85	23.3%	20000	0	373	72000	0 0.0%
13	85	23.3%	22000	0	410	76000	1 0.1%
14	50	13.7%	24000	0	448	80000	3 0.4%
15	42	11.5%	26000	0	485	84000	0 0.0%
TOTAL	365		>28000	0	0	>84000	13 1.8%
			TOTAL	1912		TOTAL	728

SUMMARY TOTALS

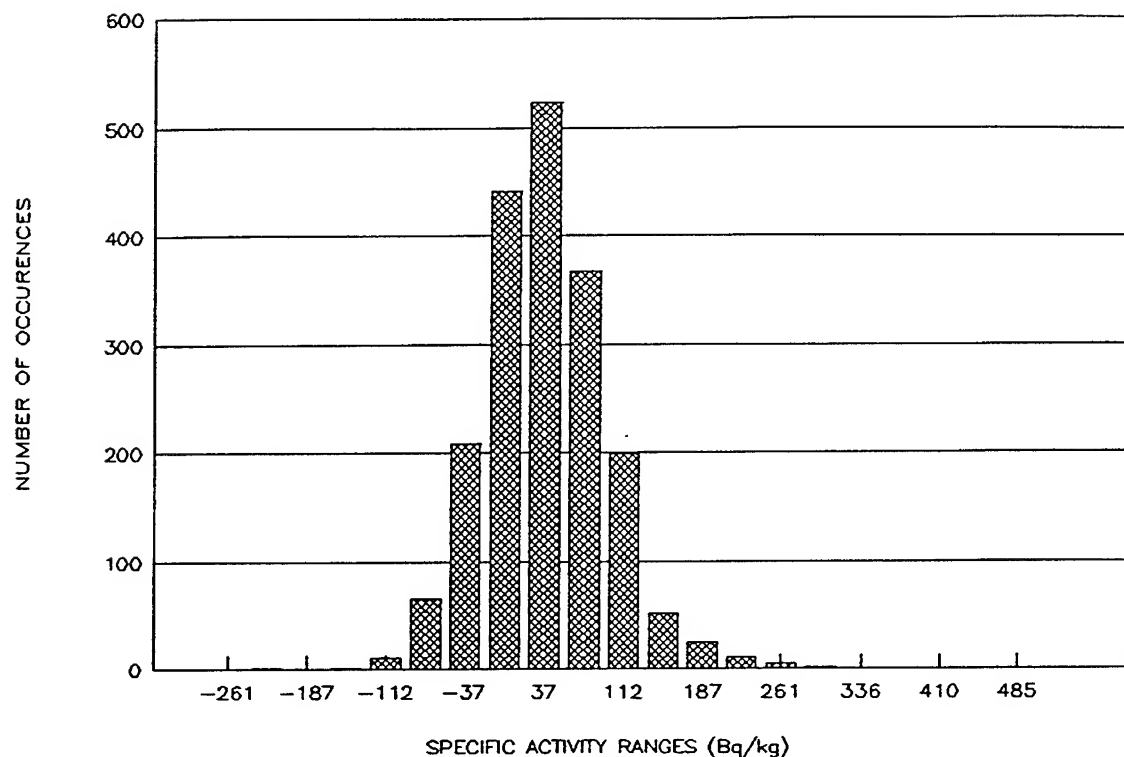
HOT PARTICLE EVENTS	727	SORTS BY ONE GATE ONLY	363
MULTIPARTICLE EVENTS	439	SORTS BY TWO GATES	365
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

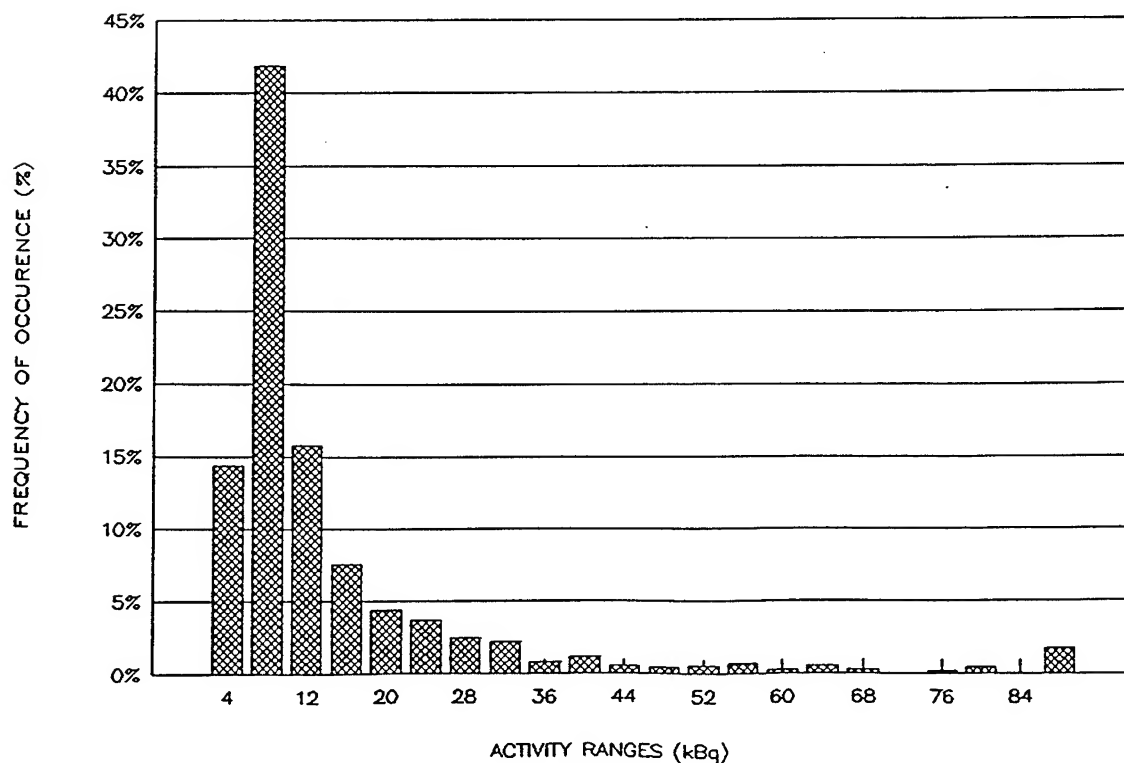
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 18-Mar-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 18-Mar-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 18-Mar-93

AVERAGE BACKGROUND COUNT RATE 0.77 ± 0.05 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	1.06 tons	91.1 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	48.2 kg

		98.9%
WEIGHT RECOVERY OR VOLUME RECOVERY	0.84 yd ³	72.2 yd ³
EQUIVALENT SOIL-IN-GROUND		73.1 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	9,107 kBq
MAXIMUM/SORT	207 kBq
MINIMUM/SORT	2.8 kBq

	4,764 kBq	6,616 kBq
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	117 kBq	19 kBq
MAXIMUM/SORT	0 Bq	-6 kBq
MINIMUM/SORT	4,508 Bq/kg	73 Bq/kg
SPECIFIC ACTIVITY		

WORK HISTORY		WORK DAY END	05:30 PM
WORK DAY START	05:55 AM	PLANT SHUT-DOWN	05:30 PM
PLANT START-UP	05:55 AM	END SOIL PROCESSING	05:02 PM
START SOIL PROCESSING	06:27 AM	LUNCH PERIOD	0.0 hr
LUNCH START	11:30 AM		

WORK HOURS	11.6 hr
AVAILABLE HOURS	11.6 hr
ACTUAL PROCESS HOURS (total 20-sec records)	9.56 hr
DOWN-TIME	2.03 hr
TOTAL SYSTEM PAUSE	1.55 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.54 hr
SHUT-DOWN	0.47 hr
PLANT PERFORMANCE	82.5%
PRODUCTIVITY	82.5%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 2,325
 NONPROCESS RECORDS (Test, calibration, etc) 10

20-SEC PROCESS RECORDS

TOTAL SORT	1,720	4 MD>0 & MND=0
NO SORT	1,056	AD=0 & MD=0 & MND>0
SOME SORT	660	AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0	
0<AD<1kBq & MD>0	1	UNEXPLAIN PAUSE
AD=0 & MD	0	TIME TIME
AD<0 & MD	0	09:48:10 05:55
ACT_P <5 kBq	142	23.5%

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS

17,200

15:42

2-SEC RECORDS WITH SORTS

605 (ACT_P >0 kBq)

2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	140	87.0%
3 DETECTORS	18	11.2%
4 DETECTORS	3	1.9%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%

TOTAL 161

NET 2-SEC RECORDS WITH SORTS

444

2-SEC PERIODS WITH NO SORTS

16,756

AVG TIME BETWEEN 2-SEC SORTS

77.5 sec

1-GATE SORTS DETECTR	SORTS	306 FREQ%	ACT_NO (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT (#)	FREQ%	ACT_P (kBq)
1	12	3.9%	-14000	0	-261	4000	60	9.9%	4
2	62	20.3%	-12000	1	-224	8000	257	42.5%	8
3	48	15.7%	-10000	1	-187	12000	82	13.6%	12
4	70	22.9%	-8000	2	-149	16000	68	11.2%	16
5	48	15.7%	-6000	2	-112	20000	30	5.0%	20
6	40	13.1%	-4000	20	-75	24000	20	3.3%	24
7	25	8.2%	-2000	62	-37	28000	8	1.3%	28
8	1	0.3%	0	177	0	32000	13	2.1%	32
TOTAL	306		2000	299	37	36000	7	1.2%	36
			4000	390	75	40000	8	1.3%	40
2-GATE SORTS		299	6000	337	112	44000	8	1.3%	44
DETECTR	SORTS	FREQ%	8000	221	149	48000	5	0.8%	48
8			10000	114	187	52000	2	0.3%	52
9	37	12.4%	12000	53	224	56000	5	0.8%	56
10	54	18.1%	14000	22	261	60000	4	0.7%	60
11	61	20.4%	16000	21	299	64000	5	0.8%	64
12	55	18.4%	18000	6	336	68000	4	0.7%	68
13	42	14.0%	20000	2	373	72000	5	0.8%	72
14	37	12.4%	22000	0	410	76000	2	0.3%	76
15	13	4.3%	24000	0	448	80000	2	0.3%	80
TOTAL	299		26000	0	485	84000	0	0.0%	84
			>28000	0	0	>84000	10	1.7%	>84
			TOTAL	1730		TOTAL	605		

SUMMARY TOTALS

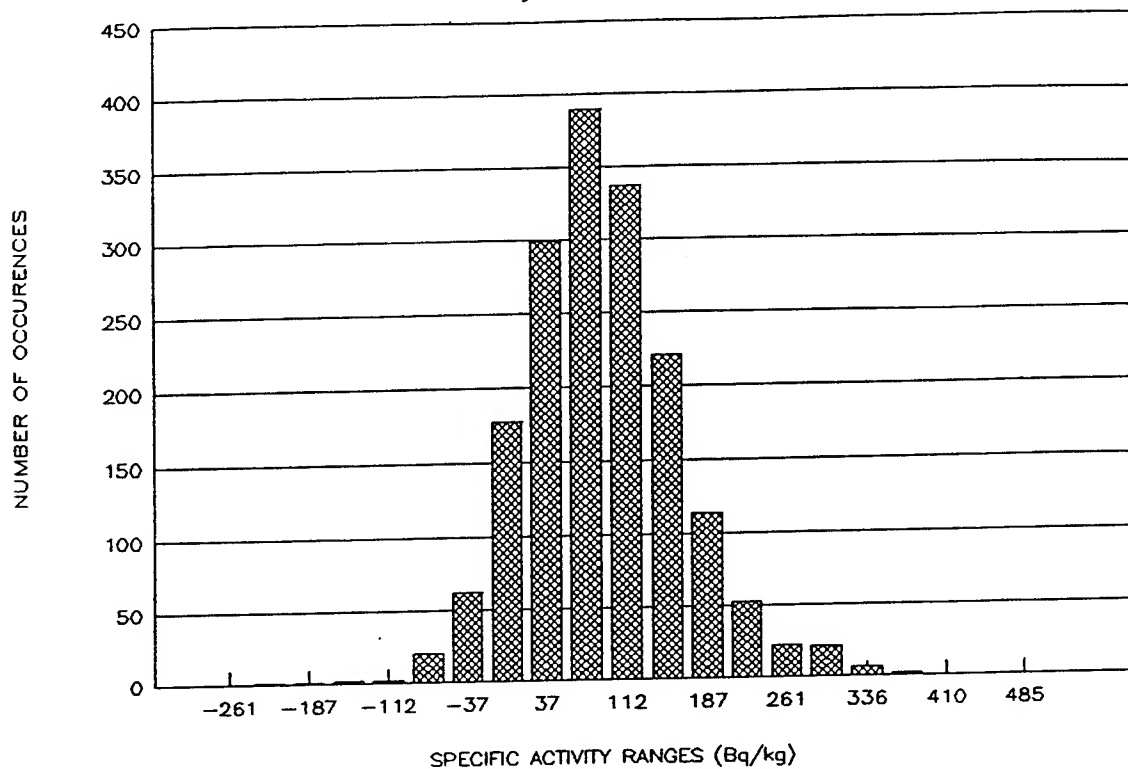
HOT PARTICLE EVENTS	605	SORTS BY ONE GATE ONLY	306
MULTIPARTICLE EVENTS	654	SORTS BY TWO GATES	299
DISTRIBUTED EVENTS	317		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

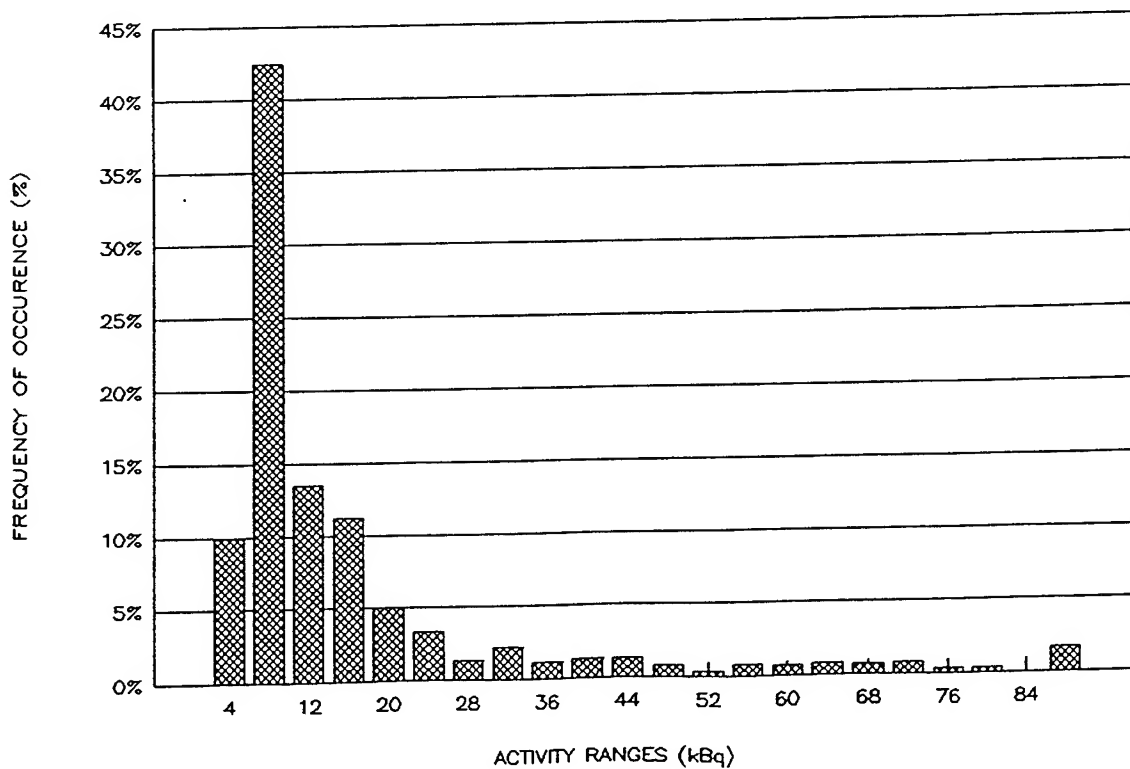
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 18-Mar-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 18-Mar-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 17-Mar-93

AVERAGE BACKGROUND COUNT RATE 0.71 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.79 tons	102.5 tons
MAXIMUM/SORT	6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	47.5 kg

		99.2%
WEIGHT RECOVERY OR VOLUME RECOVERY		
EQUIVALENT SOIL-IN-GROUND	0.63 yd ³	81.2 yd ³ 81.9 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	15,593 kBq
MAXIMUM/SORT	1,425 kBq
MINIMUM/SORT	2.4 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY		
MAXIMUM/SORT	6,409 kBq	1,251 kBq
MINIMUM/SORT	1050 kBq	14 kBq
SPECIFIC ACTIVITY	0 Bq	-10 kBq
	8,065 Bq/kg	12 Bq/kg

WORK HISTORY

WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:30 AM	END SOIL PROCESSING	05:12 PM
LUNCH START	12:00 PM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.5 hr
AVAILABLE HOURS	11.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.71 hr
DOWN-TIME	0.79 hr
TOTAL SYSTEM PAUSE	0.50 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.51 hr
SHUT-DOWN	0.29 hr
PLANT PERFORMANCE	93.1%
PRODUCTIVITY	93.1%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,706
NONPROCESS RECORDS (Test, calibration, etc)	8

20-SEC PROCESS RECORDS	1,927		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	1,344 AD=0 & MD=0 & MND>0		
SOME SORT	583 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	1	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	15:22:32	06:01
ACT_P <5 kBq	235 30.2%		13:33

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 19,270
 2-SEC RECORDS WITH SORTS 779 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 180 81.1%
 3 DETECTORS 35 15.8%
 4 DETECTORS 7 3.2%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 222
 NET 2-SEC RECORDS WITH SORTS 557
 2-SEC PERIODS WITH NO SORTS 18,713
 AVG TIME BETWEEN 2-SEC SORTS 69.2 sec

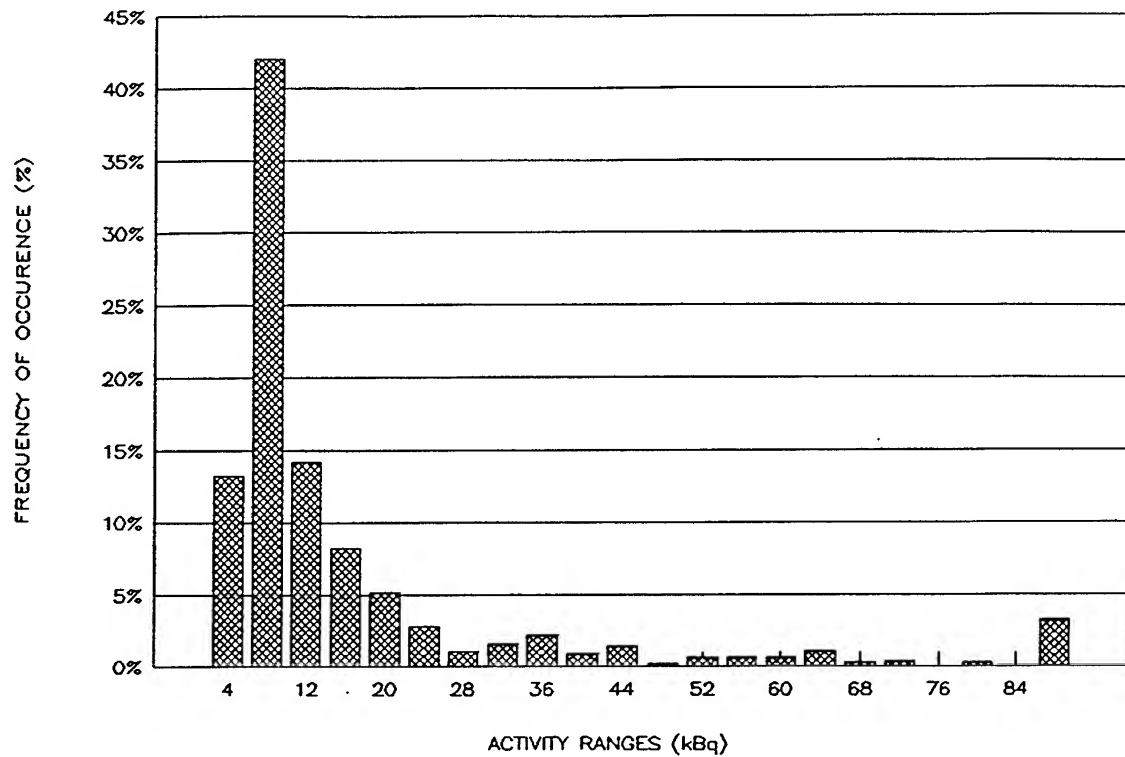
1-GATE SORTS DETECTR	394 SORTS	ACT_ND FREQ% (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT FREQ% (#)	ACT_P (kBq)
1	4	1.0%	-14000	0	-261	4000	103 13.2%
2	16	4.1%	-12000	0	-224	8000	328 42.1%
3	49	12.4%	-10000	2	-187	12000	111 14.2%
4	71	18.0%	-8000	3	-149	16000	64 8.2%
5	94	23.9%	-6000	22	-112	20000	40 5.1%
6	73	18.5%	-4000	98	-75	24000	22 2.8%
7	65	16.5%	-2000	299	-37	28000	8 1.0%
8	22	5.6%	0	417	0	32000	12 1.5%
TOTAL	394		2000	490	37	36000	17 2.2%
			4000	332	75	40000	7 0.9%
			6000	164	112	44000	11 1.4%
2-GATE SORTS	385		8000	65	149	48000	1 0.1%
DETECTR	SORTS	FREQ%	10000	24	187	52000	5 0.6%
8			12000	14	224	56000	5 0.6%
9	8	2.1%	14000	5	261	60000	5 0.6%
10	29	7.5%	16000	0	299	64000	8 1.0%
11	68	17.7%	18000	0	336	68000	2 0.3%
12	73	19.0%	20000	0	373	72000	3 0.4%
13	94	24.4%	22000	0	410	76000	0 0.0%
14	66	17.1%	24000	0	448	80000	2 0.3%
15	47	12.2%	26000	0	485	84000	0 0.0%
TOTAL	385		>28000	0	0	>84000	25 3.2%
			TOTAL	1935		TOTAL	779
SUMMARY TOTALS							
HOT PARTICLE EVENTS		750				SORTS BY ONE GATE ONLY	394
MULTIPARTICLE EVENTS		436				SORTS BY TWO GATES	385
DISTRIBUTED EVENTS		0					

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

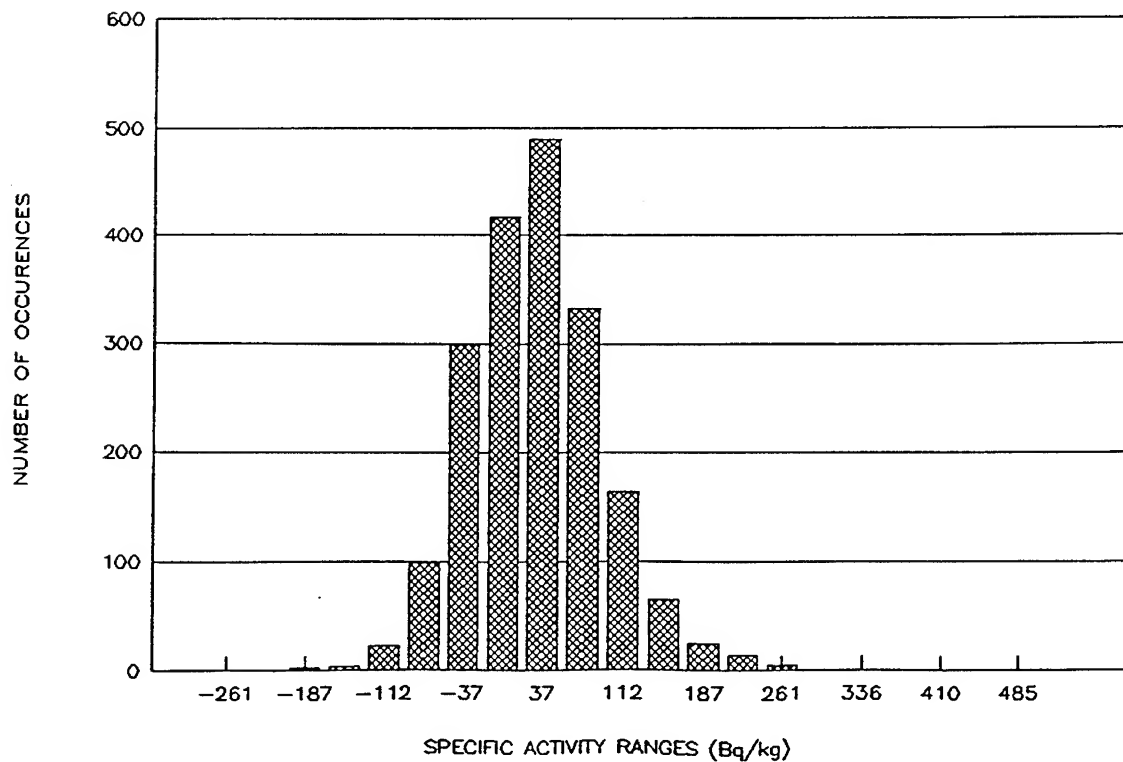
JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 17-Mar-93



CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 17-Mar-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 17-Mar-93

AVERAGE BACKGROUND COUNT RATE	0.79 ± 0.03 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	0.92 tons	102.0 tons	
MAXIMUM/SORT	5.4 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	48.2 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.1%
EQUIVALENT SOIL-IN-GROUND	0.73 yd ³	80.9 yd ³	81.6 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	12,448 kBq		
MAXIMUM/SORT	899 kBq		
MINIMUM/SORT	2.8 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	6,009 kBq	7,134 kBq	
MAXIMUM/SORT	489 kBq	18 kBq	
MINIMUM/SORT	0 Bq	-8 kBq	
SPECIFIC ACTIVITY	6,530 Bq/kg	70 Bq/kg	
WORK HISTORY			
WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:30 AM	END SOIL PROCESSING	05:10 PM
LUNCH START	12:00 PM	LUNCH PERIOD	0.0 hr
WORK HOURS	11.5 hr		
AVAILABLE HOURS	11.5 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	10.67 hr		
DOWN-TIME	0.83 hr		
TOTAL SYSTEM PAUSE	0.49 hr		
NONAVAILABLE HOURS	0.0 hr		
START-UP	0.51 hr		
SHUT-DOWN	0.32 hr		
PLANT PERFORMANCE	92.8%		
PRODUCTIVITY	92.8%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,588		
NONPROCESS RECORDS (Test, calibration, etc)	6		
20-SEC PROCESS RECORDS	1,921		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	1,178 AD=0 & MD=0 & MND>0		
SOME SORT	743 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	0	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	None	06:01
ACT_P <5 kBq	167	25.0%	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 19,210
 2-SEC RECORDS WITH SORTS 667 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	158	84.0%
3 DETECTORS	25	13.3%
4 DETECTORS	4	2.1%
5 DETECTORS	1	0.5%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	188	

NET 2-SEC RECORDS WITH SORTS 479
 2-SEC PERIODS WITH NO SORTS 18,731
 AVG TIME BETWEEN 2-SEC SORTS 80.2 sec

1-GATE SORTS	354	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	14	4.0%	-14000	0	-261	4000	74	11.1%
2	53	15.0%	-12000	1	-224	8000	267	40.0%
3	62	17.5%	-10000	1	-187	12000	94	14.1%
4	76	21.5%	-8000	1	-149	16000	50	7.5%
5	79	22.3%	-6000	5	-112	20000	36	5.4%
6	45	12.7%	-4000	15	-75	24000	31	4.6%
7	20	5.6%	-2000	68	-37	28000	21	3.1%
8	5	1.4%	0	160	0	32000	13	1.9%
TOTAL	354		2000	347	37	36000	11	1.6%
			4000	462	75	40000	8	1.2%
2-GATE SORTS	313	6000	435	112	44000	13	1.9%	44
DETECTR	SORTS	FREQ%	8000	237	149	48000	3	0.4%
8			10000	127	187	52000	5	0.7%
9	32	10.2%	12000	35	224	56000	11	1.6%
10	43	13.7%	14000	21	261	60000	6	0.9%
11	59	18.8%	16000	10	299	64000	3	0.4%
12	73	23.3%	18000	1	336	68000	3	0.4%
13	62	19.8%	20000	1	373	72000	1	0.1%
14	33	10.5%	22000	0	410	76000	2	0.3%
15	11	3.5%	24000	0	448	80000	1	0.1%
TOTAL	313		26000	0	485	84000	0	0.0%
			>28000	0	0	>84000	14	2.1%
			TOTAL	1927		TOTAL	667	

SUMMARY TOTALS

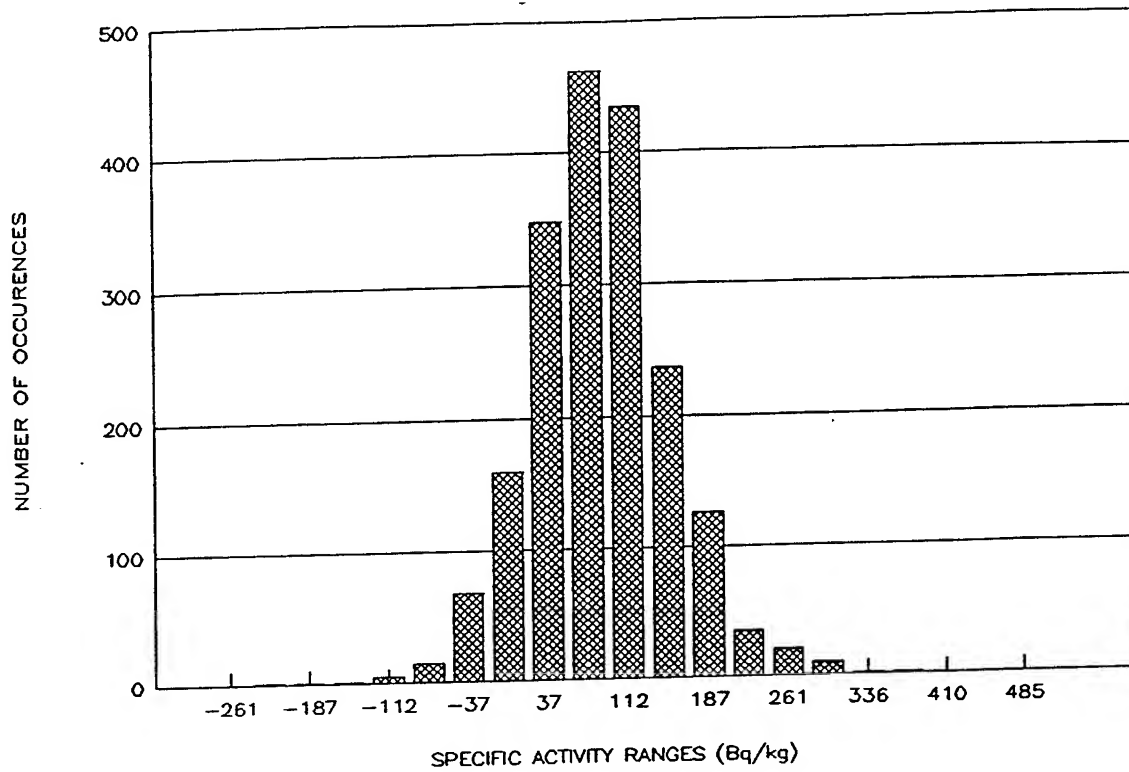
HOT PARTICLE EVENTS	657	SORTS BY ONE GATE ONLY	354
MULTIPARTICLE EVENTS	710	SORTS BY TWO GATES	313
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

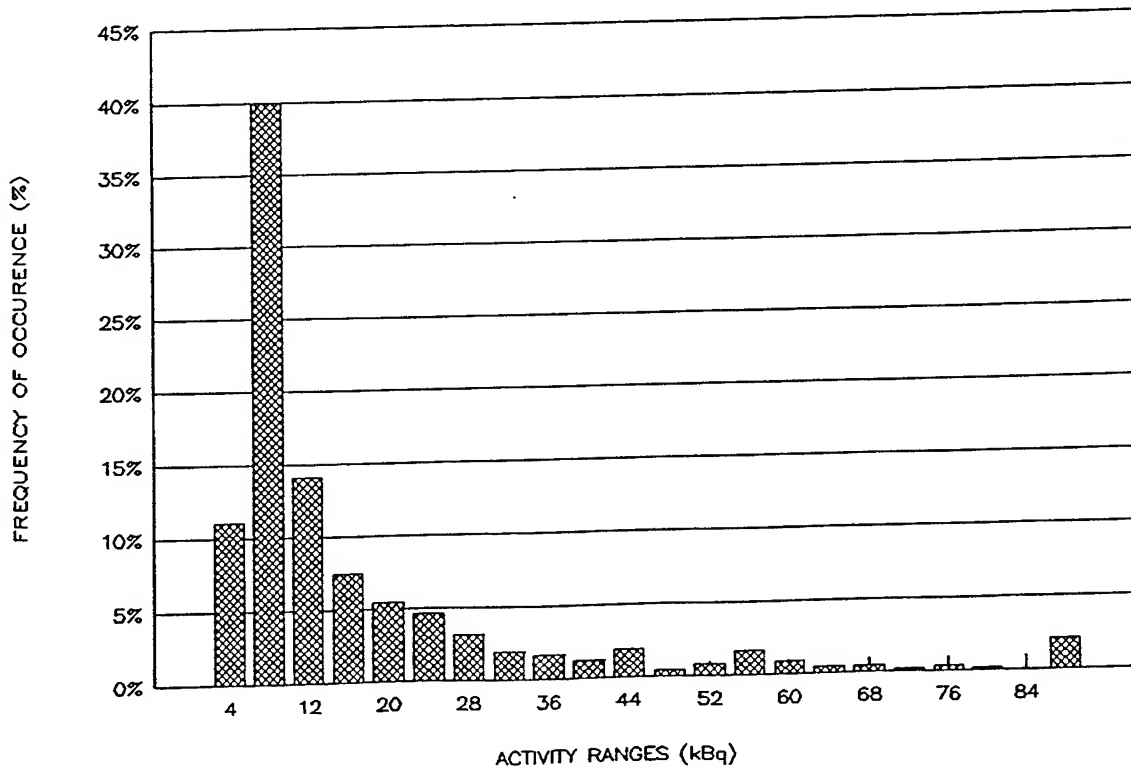
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 17-Mar-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 17-Mar-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 16-Mar-93

AVERAGE BACKGROUND COUNT RATE 0.72 ± 0.05 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.57 tons	104.0 tons
MAXIMUM/SORT	56.2 kg	53.6 kg
MINIMUM/SORT	0.7 kg	47.5 kg

		99.5%
WEIGHT RECOVERY OR VOLUME RECOVERY		
EQUIVALENT SOIL-IN-GROUND	0.45 yd³	82.5 yd³ 82.9 yd³/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	9,557 kBq
MAXIMUM/SORT	1,647 kBq
MINIMUM/SORT	2.1 kBq

		(1,192)kBq
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	3,872 kBq	
MAXIMUM/SORT	1390 kBq	17 kBq
MINIMUM/SORT	0 Bq	-10 kBq
SPECIFIC ACTIVITY	6,774 Bq/kg	(11)Bq/kg

WORK HISTORY

WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:17 AM	END SOIL PROCESSING	05:16 PM
LUNCH START	12:00 PM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.5 hr
AVAILABLE HOURS	11.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	10.84 hr
DOWN-TIME	0.66 hr
TOTAL SYSTEM PAUSE	0.72 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.29 hr
SHUT-DOWN	0.23 hr
PLANT PERFORMANCE	94.3%
PRODUCTIVITY	94.3%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,414
NONPROCESS RECORDS (Test, calibration, etc)	12

20-SEC PROCESS RECORDS	1,952		
TOTAL SORT	2 MD>0 & MND=0		
NO SORT	1,589 AD=0 & MD=0 & MND>0		
SOME SORT	360 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	1		
0<AD<1kBq & MD>0	2	UNEXPLAIN	PAUSE
AD=0 & MD	1	TIME	TIME
AD<0 & MD	0	08:26:08	05:42
ACT_P <5 kBq	159 34.4%	12:31:28	08:17

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	19,520	13:14:36	13:06
2-SEC RECORDS WITH SORTS	462 (ACT_P >0 kBq)	13:28:31	13:11
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		15:10:11	
2 DETECTORS	96 85.0%		
3 DETECTORS	14 12.4%		
4 DETECTORS	2 1.8%		
5 DETECTORS	1 0.9%		
6 DETECTORS	0 0.0%		
7 DETECTORS	0 0.0%		
8 DETECTORS	0 0.0%		
TOTAL	113		
NET 2-SEC RECORDS WITH SORTS	349		
2-SEC PERIODS WITH NO SORTS	19,171		
AVG TIME BETWEEN 2-SEC SORTS	111.9 sec		

1-GATE SORTS	238	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(#)	(kBq)
1	3	1.3%	-14000	1	-261	4000	77 16.7%
2	13	5.5%	-12000	2	-224	8000	188 40.7%
3	30	12.6%	-10000	3	-187	12000	67 14.5%
4	54	22.7%	-8000	10	-149	16000	33 7.1%
5	59	24.8%	-6000	57	-112	20000	11 2.4%
6	41	17.2%	-4000	201	-75	24000	26 5.6%
7	28	11.8%	-2000	399	-37	28000	14 3.0%
8	10	4.2%	0	527	0	32000	5 1.1%
TOTAL	238		2000	414	37	36000	4 0.9%
			4000	203	75	40000	6 1.3%
2-GATE SORTS	224	6000	80	112		44000	1 0.2%
DETECTR	SORTS	FREQ%	8000	28	149	48000	4 0.9%
8			10000	18	187	52000	2 0.4%
9	9	4.0%	12000	15	224	56000	5 1.1%
10	10	4.5%	14000	3	261	60000	5 1.1%
11	42	18.8%	16000	3	299	64000	2 0.4%
12	53	23.7%	18000	1	336	68000	1 0.2%
13	51	22.8%	20000	0	373	72000	0 0.0%
14	39	17.4%	22000	0	410	76000	1 0.2%
15	20	8.9%	24000	0	448	80000	2 0.4%
TOTAL	224		26000	0	485	84000	0 0.0%
			>28000	0	0	>84000	8 1.7%
			TOTAL	1965		TOTAL	462

SUMMARY TOTALS

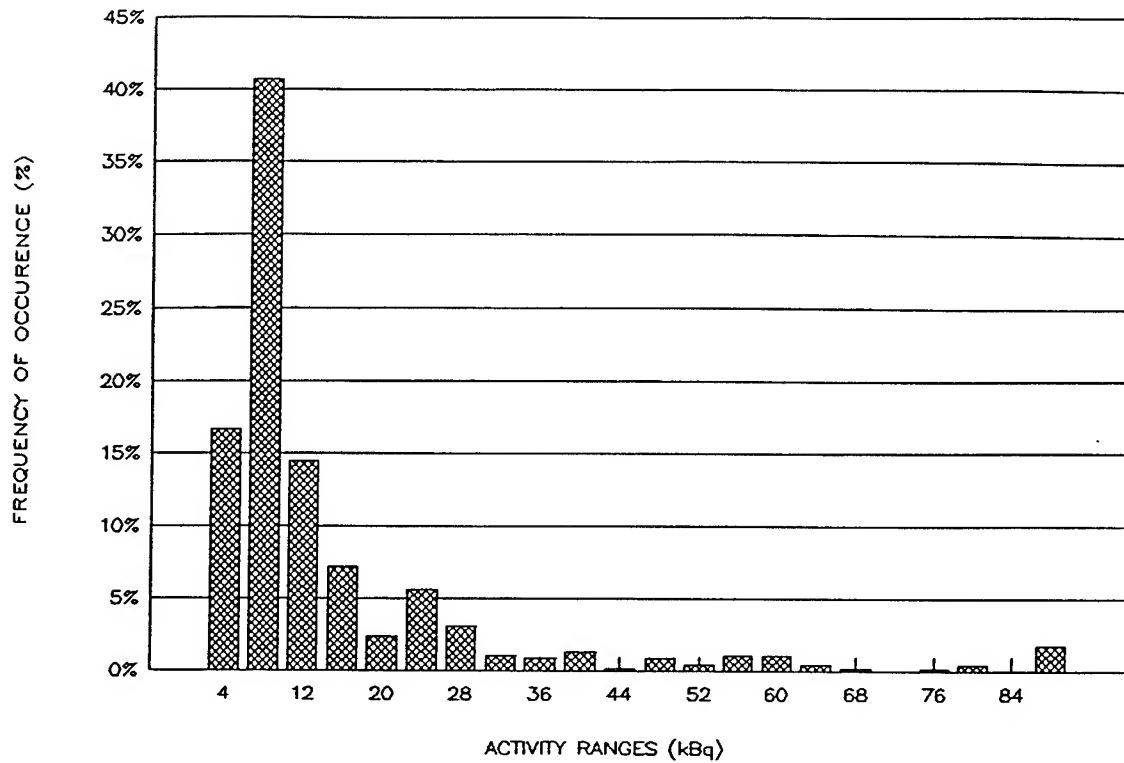
HOT PARTICLE EVENTS	444	SORTS BY ONE GATE ONLY	238
MULTIPARTICLE EVENTS	243	SORTS BY TWO GATES	224
DISTRIBUTED EVENTS	166		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

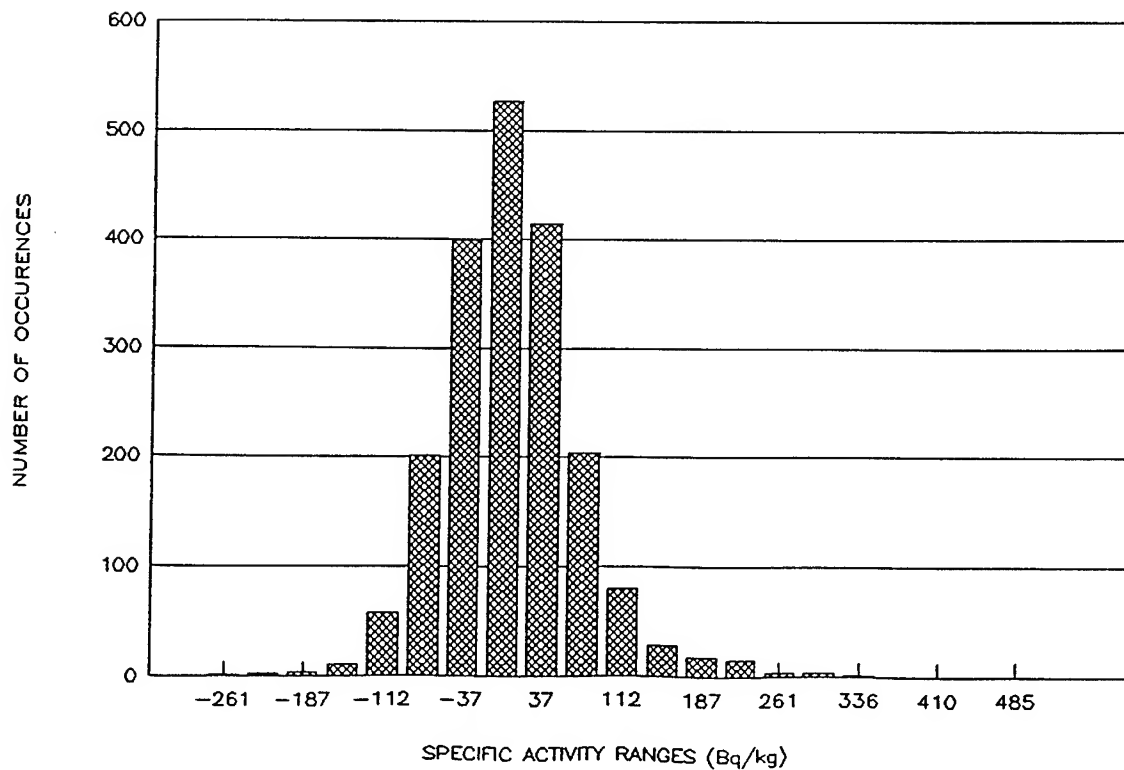
JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 16-Mar-93



CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 16-Mar-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 16-Mar-93

AVERAGE BACKGROUND COUNT RATE	0.79 ± 0.03 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		0.93 tons	101.4 tons
MAXIMUM/SORT		56.2 kg	53.6 kg
MINIMUM/SORT		0.7 kg	48.2 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			99.1%
EQUIVALENT SOIL-IN-GROUND	0.73 yd ³	80.4 yd ³	81.1 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	6,829 kBq		
MAXIMUM/SORT	545 kBq		
MINIMUM/SORT	2.7 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	3,616 kBq	5,176 kBq	
MINIMUM/SORT	434 kBq	18 kBq	
SPECIFIC ACTIVITY	-2685 Bq	-7 kBq	
	3,903 Bq/kg	51 Bq/kg	
WORK HISTORY			
WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:17 AM	END SOIL PROCESSING	05:17 PM
LUNCH START	12:00 PM	LUNCH PERIOD	0.0 hr
WORK HOURS		11.5 hr	
AVAILABLE HOURS		11.5 hr	
ACTUAL PROCESS HOURS (total 20-sec records)		10.61 hr	
DOWN-TIME		0.89 hr	
TOTAL SYSTEM PAUSE		1.00 hr	
NONAVAILABLE HOURS		0.0 hr	
START-UP		0.29 hr	
SHUT-DOWN		0.21 hr	
PLANT PERFORMANCE		92.3%	
PRODUCTIVITY		92.3%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)		2,269	
NONPROCESS RECORDS (Test, calibration, etc)		5	
20-SEC PROCESS RECORDS		1,910	
TOTAL SORT		5 MD>0 & MND=0	
NO SORT		1,299 AD=0 & MD=0 & MND>0	
SOME SORT		606 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS		0	
0<AD<1kBq & MD>0	1		UNEXPLAIN PAUSE
AD=0 & MD	2		TIME TIME
AD<0 & MD	1		07:11:08 05:42
ACT_P <5 kBq	103 28.7%		13:11:02 13:00

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	19,100	13:28:29	13:11
2-SEC RECORDS WITH SORTS	359 (ACT_P >0 kBq)	13:28:31	13:15
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR			13:19
2 DETECTORS	90 85.7%		
3 DETECTORS	12 11.4%		
4 DETECTORS	3 2.9%		
5 DETECTORS	0 0.0%		
6 DETECTORS	0 0.0%		
7 DETECTORS	0 0.0%		
8 DETECTORS	0 0.0%		
TOTAL	105		
NET 2-SEC RECORDS WITH SORTS	254		
2-SEC PERIODS WITH NO SORTS	18,846		
AVG TIME BETWEEN 2-SEC SORTS	150.4 sec		

1-GATE SORTS	190	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	8	4.2%	-14000	0	-261	4000	44	12.3%
2	36	18.9%	-12000	0	-224	8000	147	40.9%
3	39	20.5%	-10000	2	-187	12000	55	15.3%
4	44	23.2%	-8000	1	-149	16000	29	8.1%
5	32	16.8%	-6000	6	-112	20000	10	2.8%
6	23	12.1%	-4000	18	-75	24000	12	3.3%
7	7	3.7%	-2000	90	-37	28000	10	2.8%
8	1	0.5%	0	277	0	32000	10	2.8%
TOTAL	190		2000	428	37	36000	7	1.9%
			4000	476	75	40000	4	1.1%
2-GATE SORTS	169		6000	343	112	44000	1	0.3%
DETECTR	SORTS	FREQ%	8000	176	149	48000	5	1.4%
8			10000	49	187	52000	3	0.8%
9	21	12.4%	12000	22	224	56000	1	0.3%
10	28	16.6%	14000	18	261	60000	4	1.1%
11	39	23.1%	16000	7	299	64000	5	1.4%
12	33	19.5%	18000	2	336	68000	1	0.3%
13	30	17.8%	20000	0	373	72000	0	0.0%
14	15	8.9%	22000	0	410	76000	0	0.0%
15	3	1.8%	24000	0	448	80000	0	0.0%
TOTAL	169		26000	0	485	84000	0	0.0%
			>28000	0	0	>84000	11	3.1%
			TOTAL	1915		TOTAL	359	

SUMMARY TOTALS

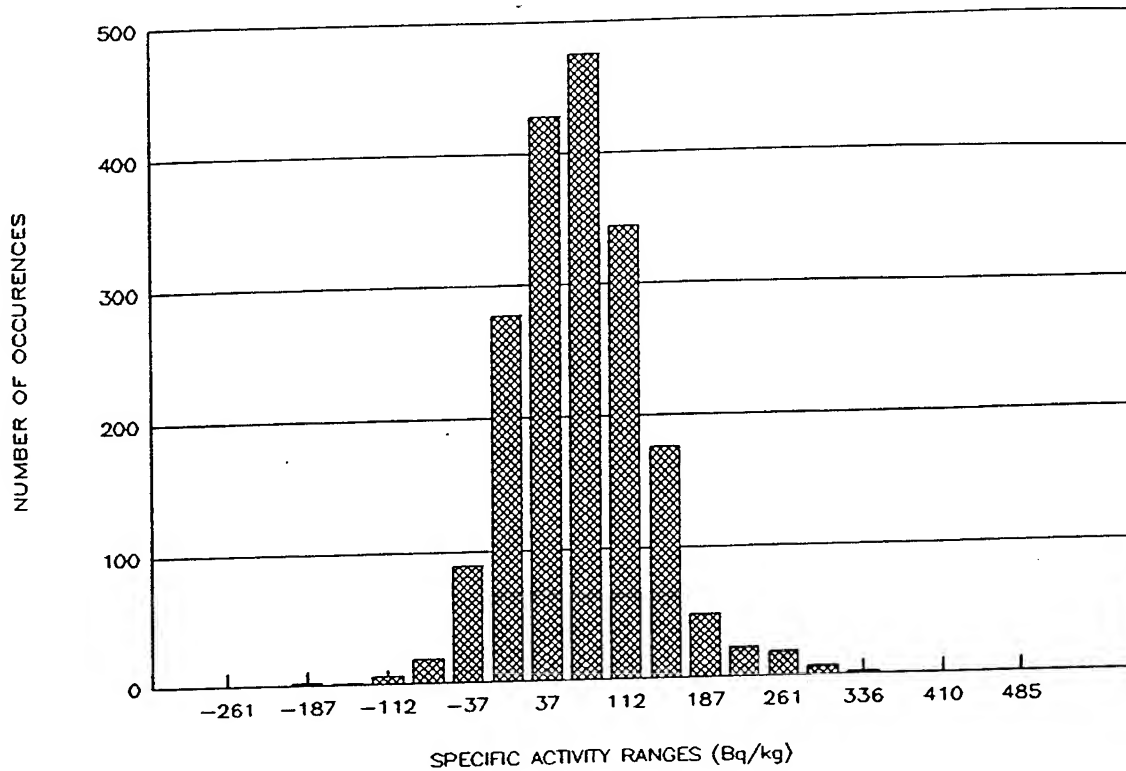
HOT PARTICLE EVENTS	358	SORTS BY ONE GATE ONLY	190
MULTIPARTICLE EVENTS	602	SORTS BY TWO GATES	169
DISTRIBUTED EVENTS	411		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

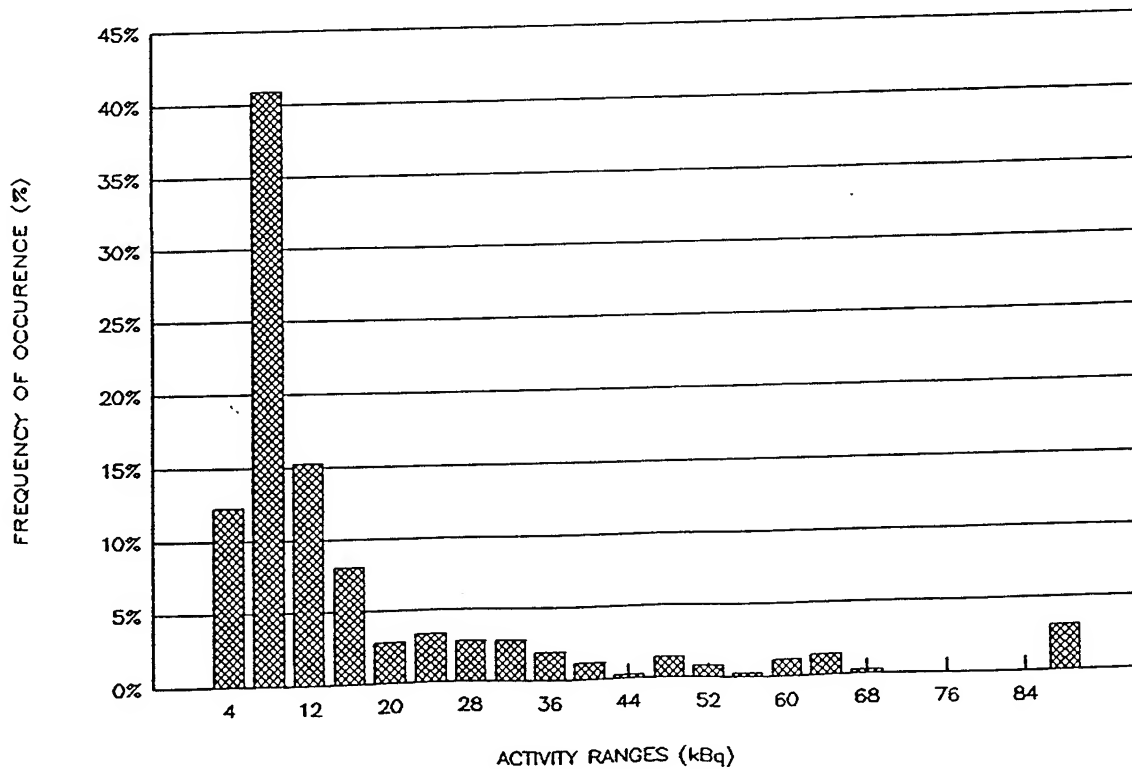
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 16-Mar-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 16-Mar-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 15-Mar-93

AVERAGE BACKGROUND COUNT RATE 0.74 ± 0.05 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.53 tons	95.6 tons
MAXIMUM/SORT	56.2 kg	53.6 kg
MINIMUM/SORT	0.7 kg	49.5 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		99.5%
EQUIVALENT SOIL-IN-GROUND	0.42 yd³	75.8 yd³ 76.2 yd³/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	6,475 kBq
MAXIMUM/SORT	221 kBq
MINIMUM/SORT	2.4 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

	2,773 kBq	(1,405)kBq
MAXIMUM/SORT	163 kBq	12 kBq
MINIMUM/SORT	0 Bq	-11 kBq
SPECIFIC ACTIVITY	5,263 Bq/kg	(15)Bq/kg

WORK HISTORY

WORK DAY START	06:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:34 AM	END SOIL PROCESSING	04:59 PM
LUNCH START	12:00 PM	LUNCH PERIOD	0.0 hr

WORK HOURS	11.5 hr
AVAILABLE HOURS	11.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	9.96 hr
DOWN-TIME	1.54 hr
TOTAL SYSTEM PAUSE	1.09 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.58 hr
SHUT-DOWN	0.50 hr
PLANT PERFORMANCE	86.6%
PRODUCTIVITY	86.6%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,191
NONPROCESS RECORDS (Test, calibration, etc)	26

20-SEC PROCESS RECORDS	1,793
TOTAL SORT	2 MD>0 & MND=0
NO SORT	1,442 AD=0 & MD=0 & MND>0
SOME SORT	349 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0

0<AD<1kBq & MD>0	1	UNEXPLAIN	PAUSE
AD=0 & MD	2	TIME	TIME
AD<0 & MD	0	08:41:56	05:51
ACT_P <5 kBq	122 30.7%	13:32:56	06:51

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	17,930	15:20:34	08:28
2-SEC RECORDS WITH SORTS	398 (ACT_P >0 kBq)		15:11
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR			15:15
2 DETECTORS	90 81.1%		15:35
3 DETECTORS	15 13.5%		
4 DETECTORS	4 3.6%		
5 DETECTORS	1 0.9%		
6 DETECTORS	0 0.0%		
7 DETECTORS	0 0.0%		
8 DETECTORS	0 0.0%		
TOTAL	111		
NET 2-SEC RECORDS WITH SORTS	287		
2-SEC PERIODS WITH NO SORTS	17,643		
AVG TIME BETWEEN 2-SEC SORTS	124.9 sec		

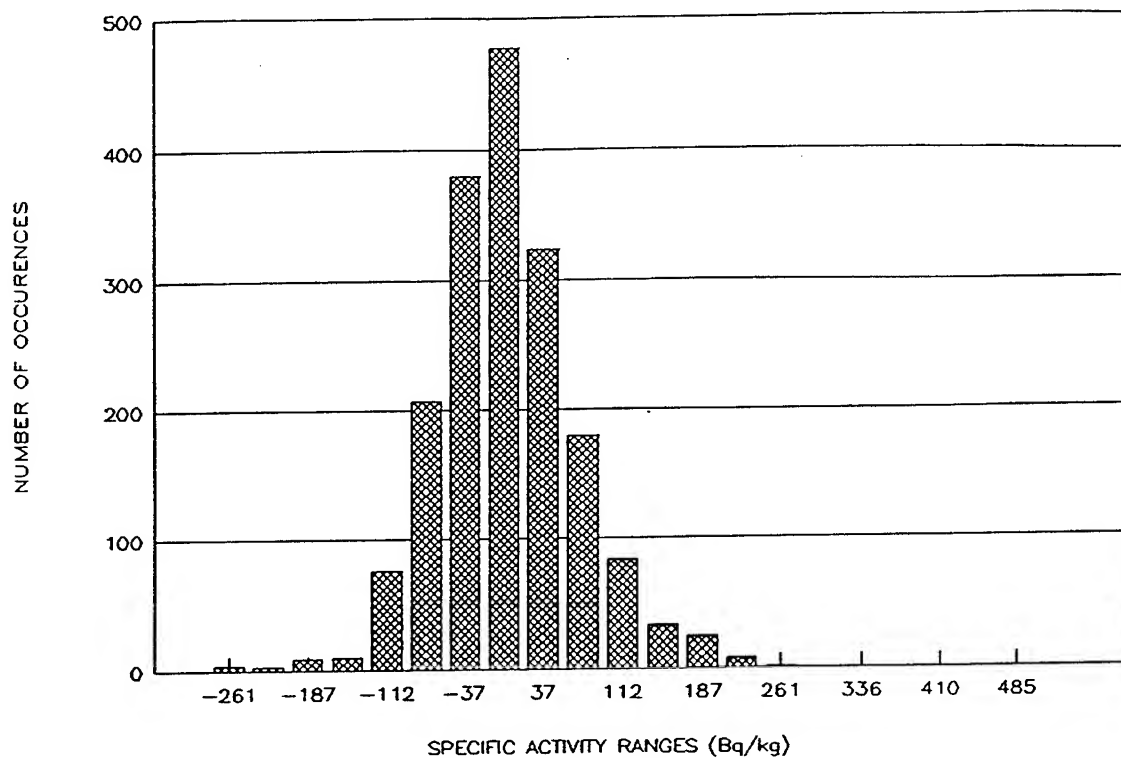
1-GATE SORTS	205	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#) (Bq/kg)	(Bq)	(#)	(kBq)
1	3	1.5%	-14000	4 -261	4000	61 15.3%	4
2	15	7.3%	-12000	3 -224	8000	163 41.0%	8
3	25	12.2%	-10000	9 -187	12000	52 13.1%	12
4	47	22.9%	-8000	10 -149	16000	21 5.3%	16
5	42	20.5%	-6000	76 -112	20000	16 4.0%	20
6	34	16.6%	-4000	207 -75	24000	18 4.5%	24
7	32	15.6%	-2000	380 -37	28000	7 1.8%	28
8	7	3.4%	0	478 0	32000	8 2.0%	32
TOTAL	205		2000	323 37	36000	5 1.3%	36
			4000	179 75	40000	8 2.0%	40
2-GATE SORTS	193		6000	84 112	44000	1 0.3%	44
DETECTR	SORTS	FREQ%	8000	33 149	48000	6 1.5%	48
8			10000	24 187	52000	7 1.8%	52
9	7	3.6%	12000	8 224	56000	4 1.0%	56
10	18	9.3%	14000	1 261	60000	5 1.3%	60
11	37	19.2%	16000	0 299	64000	1 0.3%	64
12	45	23.3%	18000	0 336	68000	3 0.8%	68
13	35	18.1%	20000	0 373	72000	0 0.0%	72
14	29	15.0%	22000	0 410	76000	0 0.0%	76
15	22	11.4%	24000	0 448	80000	0 0.0%	80
TOTAL	193		26000	0 485	84000	2 0.5%	84
			>28000	0 0	>84000	10 2.5%	>84
			TOTAL	1819	TOTAL	398	
SUMMARY TOTALS							
HOT PARTICLE EVENTS	384			SORTS BY ONE GATE ONLY	205		
MULTIPARTICLE EVENTS	232			SORTS BY TWO GATES	193		
DISTRIBUTED EVENTS	166						

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

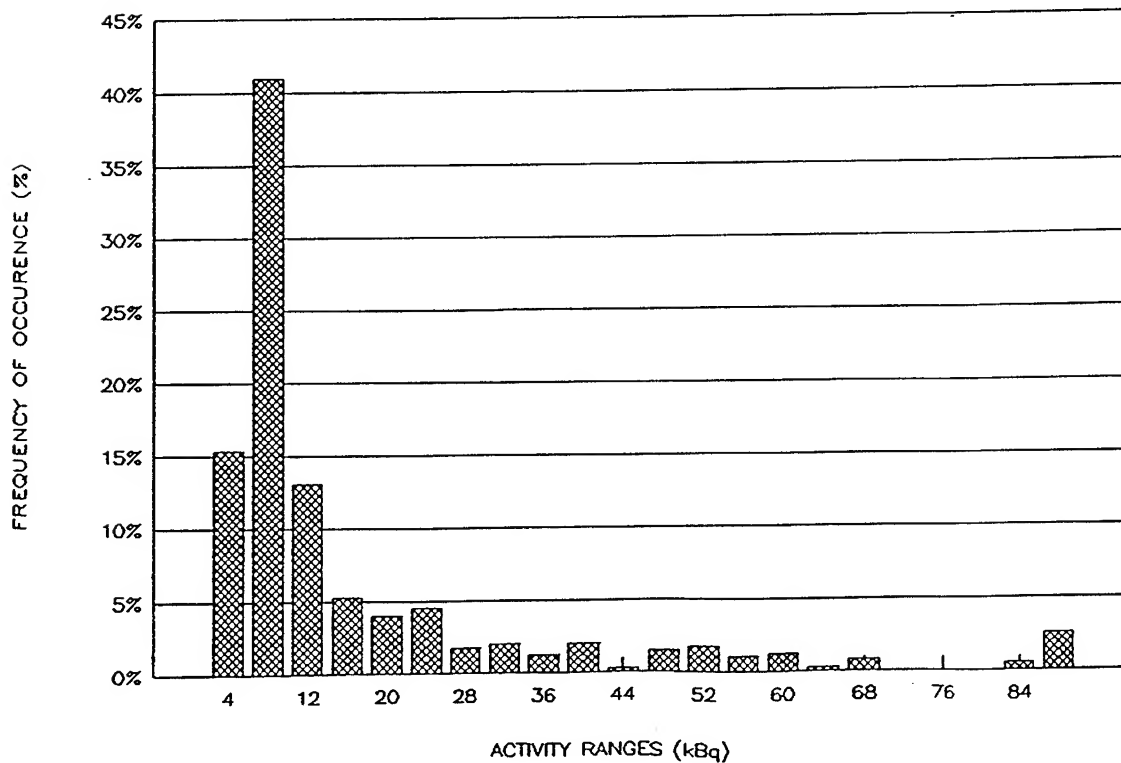
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 15-Mar-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 15-Mar-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 15-Mar-93

AVERAGE BACKGROUND COUNT RATE 0.79 ± 0.03 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.74 tons	89.6 tons
MAXIMUM/SORT	56.2 kg	53.6 kg
MINIMUM/SORT	0.7 kg	48.2 kg

WEIGHT RECOVERY OR VOLUME RECOVERY 99.2%
 EQUIVALENT SOIL-IN-GROUND 0.58 yd³ 71.0 yd³ 71.6 yd³/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)
 TOTAL 5,793 kBq
 MAXIMUM/SORT 144 kBq
 MINIMUM/SORT 2.7 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY
 MAXIMUM/SORT 122 kBq 4,048 kBq
 MINIMUM/SORT 0 Bq 14 kBq
 SPECIFIC ACTIVITY 4,257 Bq/kg -13 kBq 45 Bq/kg

WORK HISTORY

WORK DAY START 06:00 AM
 PLANT START-UP 06:00 AM
 START SOIL PROCESSING 07:25 AM
 LUNCH START 12:00 PM

WORK DAY END 05:30 PM
 PLANT SHUT-DOWN 05:30 PM
 END SOIL PROCESSING 04:59 PM
 LUNCH PERIOD 0.0 hr

WORK HOURS 11.5 hr
 AVAILABLE HOURS 11.5 hr
 ACTUAL PROCESS HOURS (total 20-sec records) 9.37 hr
 DOWN-TIME 2.13 hr
 TOTAL SYSTEM PAUSE 1.79 hr
 NONAVAILABLE HOURS 0.0 hr
 START-UP 1.42 hr
 SHUT-DOWN 0.51 hr
 PLANT PERFORMANCE 81.4%
 PRODUCTIVITY 81.4%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 2,088

NONPROCESS RECORDS (Test, calibration, etc) 5

20-SEC PROCESS RECORDS

TOTAL SORT 1,686
 NO SORT 2 MD>0 & MND=0
 SOME SORT 1,137 AD=0 & MD=0 & MND>0
 UNEXPLAINED RECORDS 546 AD>0&0<MD<MNDmax&MND<MNDmax
 1
 0<AD<1kBq & MD>0 0 UNEXPLAIN PAUSE
 AD=0 & MD 2 TIME TIME
 AD<0 & MD 0 08:41:57 05:51
 ACT_P <5 kBq 103 25.6% 13:27:37 08:28

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 16,860
 2-SEC RECORDS WITH SORTS 402 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 92 83.6%
 3 DETECTORS 15 13.6%
 4 DETECTORS 3 2.7%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 110
 NET 2-SEC RECORDS WITH SORTS 292
 2-SEC PERIODS WITH NO SORTS 16,568
 AVG TIME BETWEEN 2-SEC SORTS 115.5 sec

1-GATE SORTS DETECTR SORTS	211 FREQ%	ACT_ND (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT (#)	FREQ%	ACT_P (kBq)	
1	6	2.8%	-14000	0	-261	4000	49	12.2%	4
2	30	14.2%	-12000	2	-224	8000	167	41.5%	8
3	57	27.0%	-10000	0	-187	12000	55	13.7%	12
4	52	24.6%	-8000	2	-149	16000	33	8.2%	16
5	34	16.1%	-6000	15	-112	20000	16	4.0%	20
6	16	7.6%	-4000	37	-75	24000	18	4.5%	24
7	12	5.7%	-2000	115	-37	28000	14	3.5%	28
8	4	1.9%	0	226	0	32000	11	2.7%	32
TOTAL	211		2000	349	37	36000	9	2.2%	36
			4000	403	75	40000	3	0.7%	40
2-GATE SORTS	191		6000	309	112	44000	2	0.5%	44
DETECTR SORTS	FREQ%		8000	160	149	48000	3	0.7%	48
8			10000	52	187	52000	1	0.2%	52
9	15	7.9%	12000	18	224	56000	4	1.0%	56
10	40	20.9%	14000	3	261	60000	6	1.5%	60
11	54	28.3%	16000	0	299	64000	1	0.2%	64
12	37	19.4%	18000	0	336	68000	2	0.5%	68
13	23	12.0%	20000	0	373	72000	1	0.2%	72
14	12	6.3%	22000	0	410	76000	0	0.0%	76
15	10	5.2%	24000	0	448	80000	0	0.0%	80
TOTAL	191		26000	0	485	84000	0	0.0%	84
			>28000	0	0	>84000	7	1.7%	>84
			TOTAL	1691		TOTAL	402		

SUMMARY TOTALS

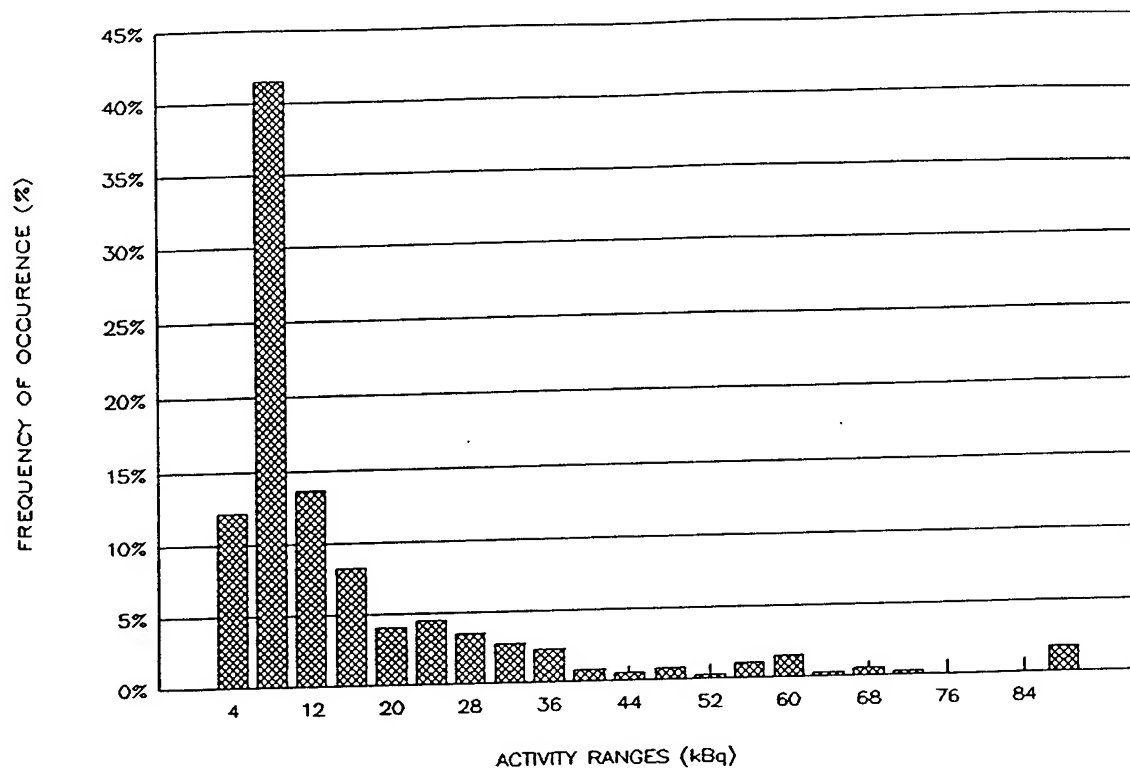
HOT PARTICLE EVENTS	392	SORTS BY ONE GATE ONLY	211
MULTIPARTICLE EVENTS	536	SORTS BY TWO GATES	191
DISTRIBUTED EVENTS	166		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

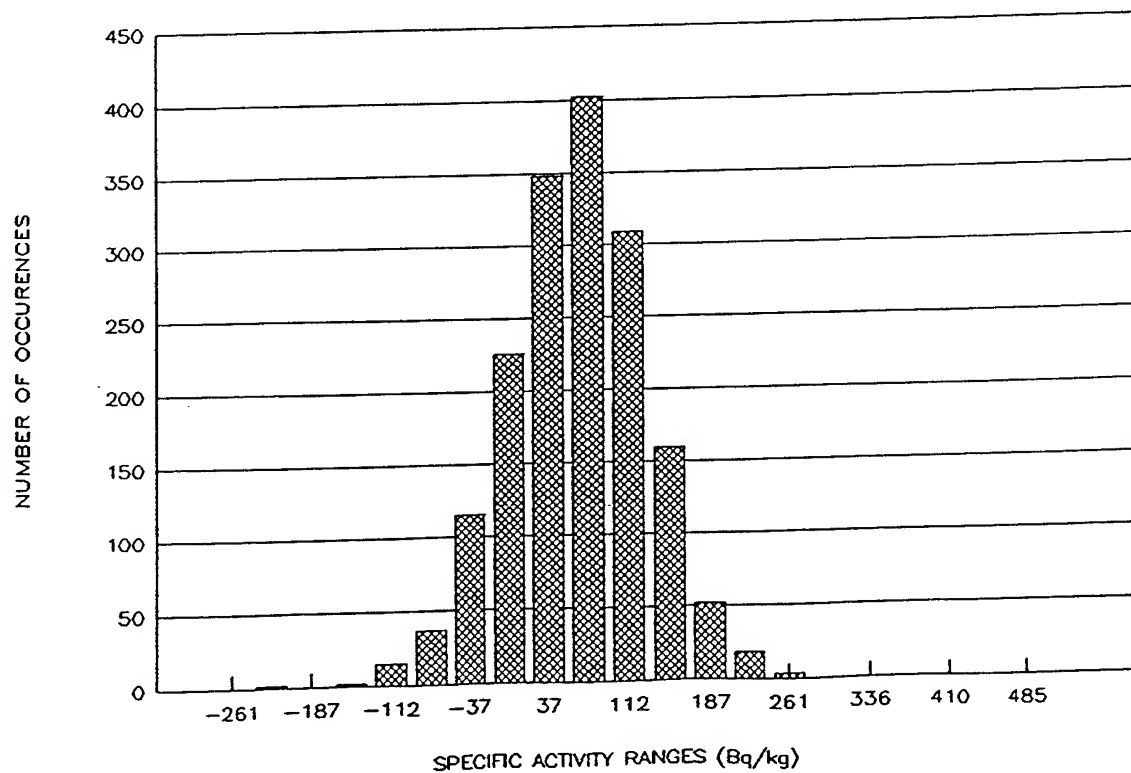
JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 15-Mar-93



CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 15-Mar-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 20-Feb-93

AVERAGE BACKGROUND COUNT RATE 0.70 ± 0.02 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.31 tons	95.8 tons
MAXIMUM/SORT	4.7 kg	53.6 kg
MINIMUM/SORT	0.7 kg	48.9 kg

		99.7%
WEIGHT RECOVERY OR VOLUME RECOVERY		
EQUIVALENT SOIL-IN-GROUND	0.25 yd³	75.9 yd³ 76.2 yd³/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	6,070 kBq
MAXIMUM/SORT	655 kBq
MINIMUM/SORT	2.6 kBq

		(789)kBq
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	2,445 kBq	
MAXIMUM/SORT	398 kBq	12 kBq
MINIMUM/SORT	0 Bq	-10 kBq
SPECIFIC ACTIVITY	7,911 Bq/kg	(8)Bq/kg

WORK HISTORY

WORK DAY START	04:45 AM	WORK DAY END	03:30 PM
PLANT START-UP	04:45 AM	PLANT SHUT-DOWN	03:30 PM
START SOIL PROCESSING	05:16 AM	END SOIL PROCESSING	03:13 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	10.8 hr
AVAILABLE HOURS	10.8 hr
ACTUAL PROCESS HOURS (total 20-sec records)	9.96 hr
DOWN-TIME	0.79 hr
TOTAL SYSTEM PAUSE	0.50 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.53 hr
SHUT-DOWN	0.27 hr
PLANT PERFORMANCE	92.7%
PRODUCTIVITY	92.7%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,083
NONPROCESS RECORDS (Test, calibration, etc)	13

20-SEC PROCESS RECORDS	1,793
TOTAL SORT	0 MD>0 & MND=0
NO SORT	1,529 AD=0 & MD=0 & MND>0
SOME SORT	264 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	0
AD=0 & MD	0
AD<0 & MD	0
ACT_P <5 kBq	70 24.1%

UNEXPLAIN	PAUSE
TIME	TIME
None	04:46

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 17,930
 2-SEC RECORDS WITH SORTS 290 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 78 87.6%
 3 DETECTORS 8 9.0%
 4 DETECTORS 3 3.4%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 89
 NET 2-SEC RECORDS WITH SORTS 201
 2-SEC PERIODS WITH NO SORTS 17,729
 AVG TIME BETWEEN 2-SEC SORTS 178.4 sec

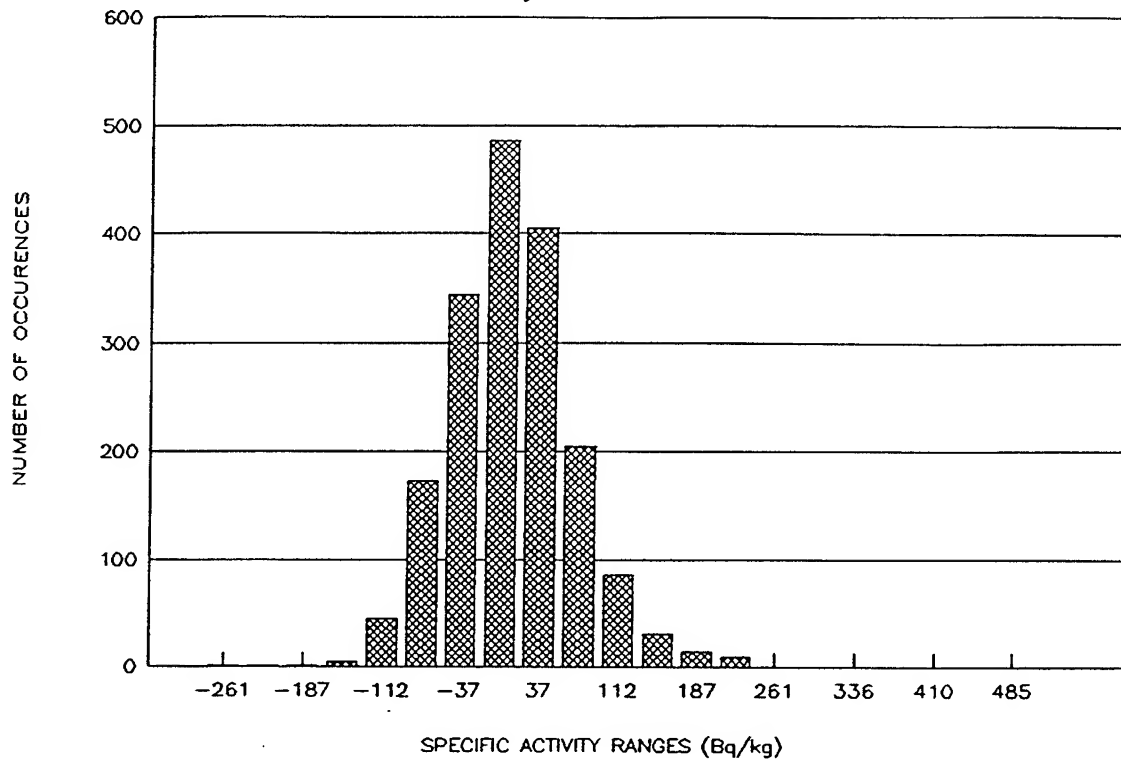
1-GATE SORTS		148	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%		ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	3	2.0%	-14000	1	-261	4000	31	10.6%	4
2	9	6.0%	-12000	1	-224	8000	118	40.4%	8
3	13	8.7%	-10000	1	-187	12000	49	16.8%	12
4	29	19.5%	-8000	5	-149	16000	19	6.5%	16
5	38	25.5%	-6000	45	-112	20000	14	4.8%	20
6	22	14.8%	-4000	173	-75	24000	9	3.1%	24
7	26	17.4%	-2000	344	-37	28000	6	2.1%	28
8	9	6.0%	0	486	0	32000	9	3.1%	32
TOTAL	149		2000	405	37	36000	1	0.3%	36
			4000	205	75	40000	5	1.7%	40
			6000	85	112	44000	4	1.4%	44
2-GATE SORTS		142	8000	30	149	48000	2	0.7%	48
DETECTR	SORTS	FREQ%				52000	6	2.1%	52
8			10000	14	187	56000	1	0.3%	56
9	6	4.2%	12000	9	224	60000	2	0.7%	60
10	16	11.2%	14000	0	261	64000	3	1.0%	64
11	26	18.2%	16000	0	299	68000	1	0.3%	68
12	26	18.2%	18000	0	336	72000	0	0.0%	72
13	29	20.3%	20000	0	373	76000	0	0.0%	76
14	25	17.5%	22000	0	410	80000	0	0.0%	80
15	15	10.5%	24000	0	448	84000	0	0.0%	84
TOTAL	143		26000	0	485	>84000	12	4.1%	>84
			>28000	0	0	TOTAL	292		
			TOTAL	1804					
SUMMARY TOTALS									
HOT PARTICLE EVENTS			276	SORTS BY ONE GATE ONLY			148		
MULTIPARTICLE EVENTS			183	SORTS BY TWO GATES			142		
DISTRIBUTED EVENTS			0						

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

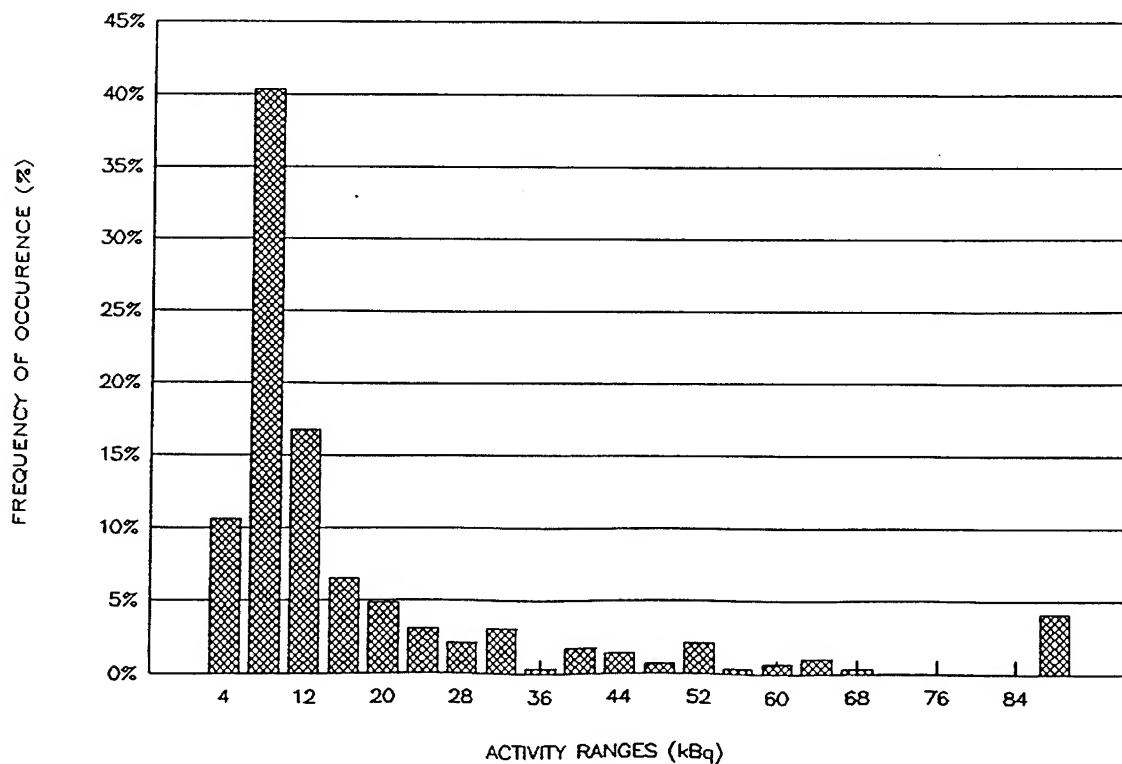
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 20-Feb-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 20-Feb-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 20-Feb-93

AVERAGE BACKGROUND COUNT RATE
SORTER SOIL DENSITY
GROUND SOIL DENSITY

0.79 ± 0.04 c/sec
1.15 tons/m³
1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.51 tons	62.9 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	48.9 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		99.2%
EQUIVALENT SOIL-IN-GROUND	0.41 yd ³	49.9 yd ³ 50.3 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	3,092 kBq
MAXIMUM/SORT	231 kBq
MINIMUM/SORT	3.1 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

	1,792 kBq	4,113 kBq
MAXIMUM/SORT	179 kBq	18 kBq
MINIMUM/SORT	0 Bq	-8 kBq
SPECIFIC ACTIVITY	3,499 Bq/kg	65 Bq/kg

WORK HISTORY

WORK DAY START	04:45 AM	WORK DAY END	03:30 PM
PLANT START-UP	04:45 AM	PLANT SHUT-DOWN	03:30 PM
START SOIL PROCESSING	08:39 AM	END SOIL PROCESSING	03:14 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	10.8 hr
AVAILABLE HOURS	10.8 hr
ACTUAL PROCESS HOURS (total 20-sec records)	6.58 hr
DOWN-TIME	4.17 hr
TOTAL SYSTEM PAUSE	3.90 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	3.91 hr
SHUT-DOWN	0.25 hr
PLANT PERFORMANCE	61.2%
PRODUCTIVITY	61.2%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)

NONPROCESS RECORDS (Test, calibration, etc)

20-SEC PROCESS RECORDS

TOTAL SORT	1,364
NO SORT	9
SOME SORT	1,184
UNEXPLAINED RECORDS	3 MD>0 & MND=0
0<AD<1kBq & MD>0	848 AD=0 & MD=0 & MND>0
AD=0 & MD	333 AD>0&0<MD<MNDmax&MND<MNDmax
AD<0 & MD	0
ACT_P <5 kBq	51 28.3%

UNEXPLAIN	PAUSE
TIME	TIME
11:43:31	04:46
15:01:11	12:40

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 11,840
 2-SEC RECORDS WITH SORTS 180 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 37 84.1%
 3 DETECTORS 7 15.9%
 4 DETECTORS 0 0.0%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 44
 NET 2-SEC RECORDS WITH SORTS 136
 2-SEC PERIODS WITH NO SORTS 11,704
 AVG TIME BETWEEN 2-SEC SORTS 174.1 sec

1-GATE SORTS		92	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%		ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	3	3.3%	-14000	0	-261	4000	24	13.3%	4
2	9	9.8%	-12000	0	-224	8000	75	41.7%	8
3	12	13.0%	-10000	0	-187	12000	31	17.2%	12
4	22	23.9%	-8000	2	-149	16000	9	5.0%	16
5	17	18.5%	-6000	2	-112	20000	4	2.2%	20
6	14	15.2%	-4000	14	-75	24000	8	4.4%	24
7	13	14.1%	-2000	39	-37	28000	3	1.7%	28
8	2	2.2%	0	112	0	32000	4	2.2%	32
TOTAL	92		2000	240	37	36000	3	1.7%	36
			4000	302	75	40000	2	1.1%	40
2-GATE SORTS		88	6000	254	112	44000	2	1.1%	44
DETECTR	SORTS	FREQ%	8000	118	149	48000	3	1.7%	48
8			10000	55	187	52000	3	1.7%	52
9	6	6.8%	12000	34	224	56000	1	0.6%	56
10	9	10.2%	14000	10	261	60000	2	1.1%	60
11	18	20.5%	16000	6	299	64000	0	0.0%	64
12	16	18.2%	18000	4	336	68000	0	0.0%	68
13	16	18.2%	20000	1	373	72000	0	0.0%	72
14	15	17.0%	22000	0	410	76000	1	0.6%	76
15	8	9.1%	24000	0	448	80000	0	0.0%	80
TOTAL	88		26000	0	485	84000	0	0.0%	84
			>28000	0	0	>84000	5	2.8%	>84
			TOTAL	1193		TOTAL	180		

SUMMARY TOTALS

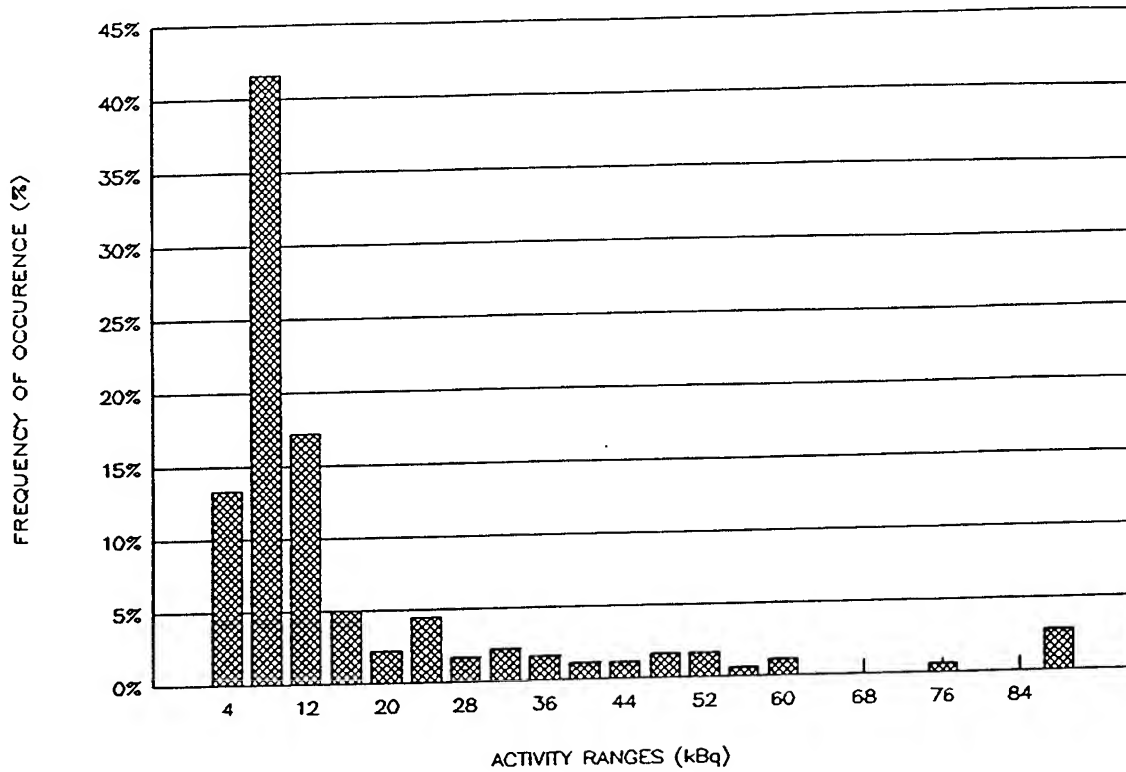
HOT PARTICLE EVENTS	180	SORTS BY ONE GATE ONLY	92
MULTIPARTICLE EVENTS	343	SORTS BY TWO GATES	88
DISTRIBUTED EVENTS	237		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

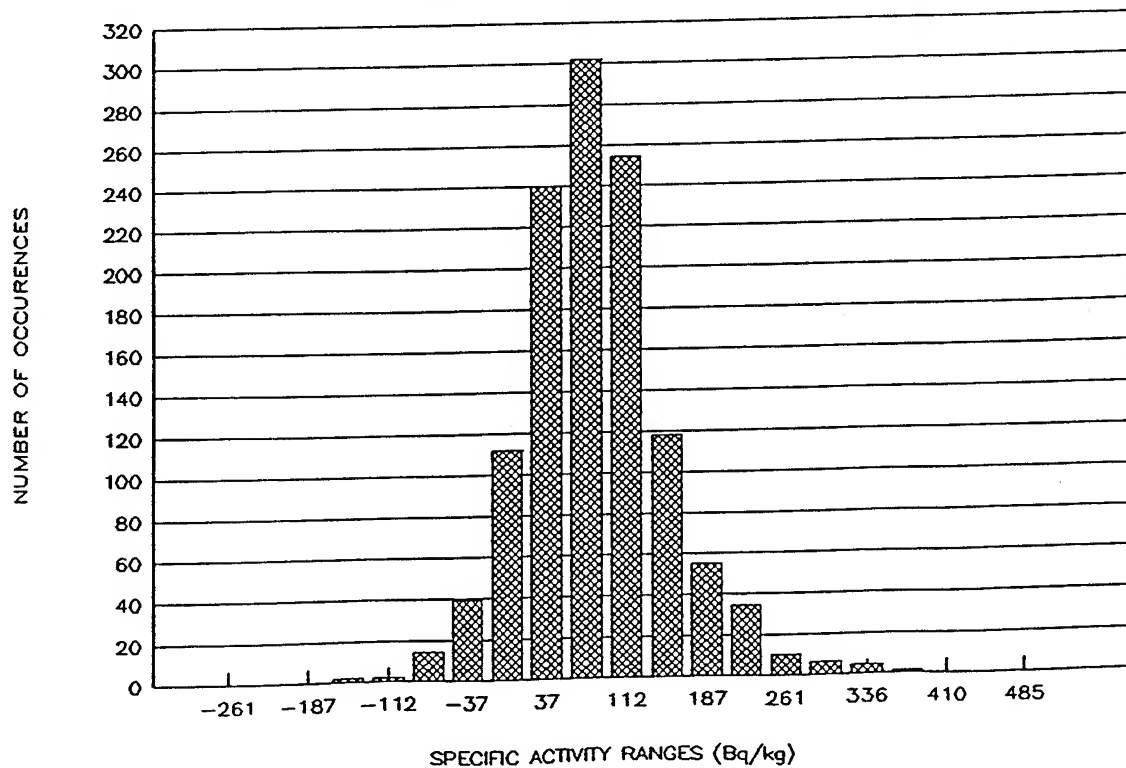
JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 20-Feb-93



CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 20-Feb-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 19-Feb-93

AVERAGE BACKGROUND COUNT RATE 0.70 \pm 0.02 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.21 tons	82.9 tons
MAXIMUM/SORT	3.3 kg	53.6 kg
MINIMUM/SORT	0.7 kg	50.2 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		99.7%
EQUIVALENT SOIL-IN-GROUND	0.17 yd ³	65.7 yd ³ 65.9 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	2,359 kBq
MAXIMUM/SORT	162 kBq
MINIMUM/SORT	2.3 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

	1,119 kBq	(742)kBq
MAXIMUM/SORT	85 kBq	13 kBq
MINIMUM/SORT	0 Bq	-10 kBq
SPECIFIC ACTIVITY	5,363 Bq/kg	(9)Bq/kg

WORK HISTORY

WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	08:20 AM	END SOIL PROCESSING	05:00 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	10.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	8.62 hr
DOWN-TIME	1.38 hr
TOTAL SYSTEM PAUSE	0.69 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	1.34 hr
SHUT-DOWN	0.49 hr
PLANT PERFORMANCE	86.2%
PRODUCTIVITY	86.2%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)

1,711

NONPROCESS RECORDS (Test, calibration, etc)

17

20-SEC PROCESS RECORDS

1,551

TOTAL SORT	0 MD>0 & MND=0		
NO SORT	1,351 AD=0 & MD=0 & MND>0		
SOME SORT	200 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	1	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	10:51:47	07:38
ACT_P <5 kBq	60	37.5%	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 15,510
 2-SEC RECORDS WITH SORTS 160 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 36 83.7%
 3 DETECTORS 7 16.3%
 4 DETECTORS 0 0.0%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 43
 NET 2-SEC RECORDS WITH SORTS 117
 2-SEC PERIODS WITH NO SORTS 15,393
 AVG TIME BETWEEN 2-SEC SORTS 265.1 sec

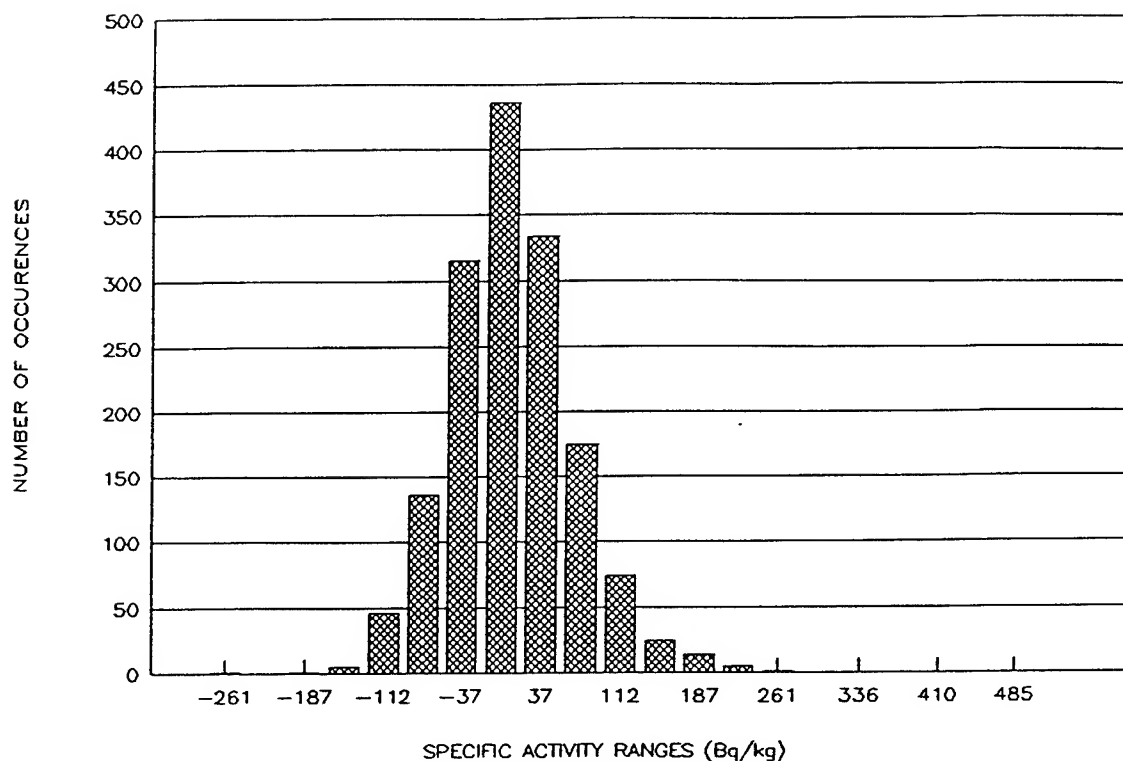
1-GATE SORTS DETECTR	SORTS	82 FREQ%	ACT_ND (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT FREQ#	FREQ%	ACT_P (kBq)
1	5	6.1%	-14000	1	-261	4000	25	15.6%	4
2	7	8.5%	-12000	0	-224	8000	68	42.5%	8
3	8	9.8%	-10000	1	-187	12000	23	14.4%	12
4	20	24.4%	-8000	5	-149	16000	7	4.4%	16
5	15	18.3%	-6000	46	-112	20000	7	4.4%	20
6	10	12.2%	-4000	137	-75	24000	3	1.9%	24
7	12	14.6%	-2000	315	-37	28000	8	5.0%	28
8	5	6.1%	0	436	0	32000	3	1.9%	32
TOTAL	82		2000	334	37	36000	2	1.3%	36
			4000	175	75	40000	2	1.3%	40
			6000	74	112	44000	0	0.0%	44
2-GATE SORTS		78	8000	24	149	48000	0	0.0%	48
DETECTR	SORTS	FREQ%	10000	14	187	52000	2	1.3%	52
8			12000	5	224	56000	1	0.6%	56
9	4	5.1%	14000	1	261	60000	2	1.3%	60
10	5	6.4%	16000	0	299	64000	2	1.3%	64
11	14	17.9%	18000	0	336	68000	1	0.6%	68
12	23	29.5%	20000	0	373	72000	0	0.0%	72
13	8	10.3%	22000	0	410	76000	0	0.0%	76
14	12	15.4%	24000	0	448	80000	0	0.0%	80
15	12	15.4%	26000	0	485	84000	0	0.0%	84
TOTAL	78		>28000	0	0	>84000	4	2.5%	>84
			TOTAL	1568		TOTAL	160		
SUMMARY TOTALS									
HOT PARTICLE EVENTS			170			SORTS BY ONE GATE ONLY	82		
MULTIPARTICLE EVENTS			139			SORTS BY TWO GATES	78		
DISTRIBUTED EVENTS			0						

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 19-Feb-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 19-Feb-93

AVERAGE BACKGROUND COUNT RATE 0.79 ± 0.02 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.25 tons	60.0 tons
MAXIMUM/SORT	3.3 kg	53.6 kg
MINIMUM/SORT	0.7 kg	50.2 kg

			99.6%
WEIGHT RECOVERY OR VOLUME RECOVERY			
EQUIVALENT SOIL-IN-GROUND	0.20 yd ³	47.6 yd ³	47.8 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	1,582 kBq
MAXIMUM/SORT	71 kBq
MINIMUM/SORT	2.9 kBq

	995 kBq	3,129 kBq
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY		
MAXIMUM/SORT	41 kBq	14 kBq
MINIMUM/SORT	0 Bq	-8 kBq
SPECIFIC ACTIVITY	3,911 Bq/kg	52 Bq/kg

WORK HISTORY

WORK DAY START	07:00 AM
PLANT START-UP	07:00 AM
START SOIL PROCESSING	10:45 AM
LUNCH START	11:30 AM

WORK DAY END	05:30 PM
PLANT SHUT-DOWN	05:30 PM
END SOIL PROCESSING	04:59 PM
LUNCH PERIOD	0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	10.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	6.25 hr
DOWN-TIME	3.75 hr
TOTAL SYSTEM PAUSE	3.11 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	3.75 hr
SHUT-DOWN	0.50 hr
PLANT PERFORMANCE	62.5%
PRODUCTIVITY	62.5%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 1,243
 NONPROCESS RECORDS (Test, calibration, etc) 7

20-SEC PROCESS RECORDS

TOTAL SORT	1,125	0 MD>0 & MND=0	
NO SORT		866 AD=0 & MD=0 & MND>0	
SOME SORT		259 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	0	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	None	07:38
ACT_P <5 kBq	31	26.3%	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 11,250
 2-SEC RECORDS WITH SORTS 118 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 19 90.5%
 3 DETECTORS 2 9.5%
 4 DETECTORS 0 0.0%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 21
 NET 2-SEC RECORDS WITH SORTS 97
 2-SEC PERIODS WITH NO SORTS 11,153
 AVG TIME BETWEEN 2-SEC SORTS 232.0 sec

1-GATE SORTS		61	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%		ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	3	4.9%	-14000	0	-261	4000	17	14.4%	4
2	15	24.6%	-12000	2	-224	8000	40	33.9%	8
3	8	13.1%	-10000	1	-187	12000	21	17.8%	12
4	12	19.7%	-8000	1	-149	16000	10	8.5%	16
5	12	19.7%	-6000	3	-112	20000	10	8.5%	20
6	5	8.2%	-4000	12	-75	24000	5	4.2%	24
7	5	8.2%	-2000	56	-37	28000	2	1.7%	28
8	1	1.6%	0	135	0	32000	2	1.7%	32
TOTAL	61		2000	248	37	36000	3	2.5%	36
			4000	282	75	40000	0	0.0%	40
2-GATE SORTS		57	6000	235	112	44000	1	0.8%	44
DETECTR	SORTS	FREQ%	8000	95	149	48000	0	0.0%	48
8			10000	51	187	52000	2	1.7%	52
9	6	10.5%	12000	9	224	56000	2	1.7%	56
10	12	21.1%	14000	2	261	60000	0	0.0%	60
11	11	19.3%	16000	0	299	64000	1	0.8%	64
12	11	19.3%	18000	0	336	68000	1	0.8%	68
13	7	12.3%	20000	0	373	72000	1	0.8%	72
14	5	8.8%	22000	0	410	76000	0	0.0%	76
15	5	8.8%	24000	0	448	80000	0	0.0%	80
TOTAL	57		26000	0	485	84000	0	0.0%	84
			>28000	0	0	>84000	0	0.0%	>84
			TOTAL	1132		TOTAL	118		

SUMMARY TOTALS

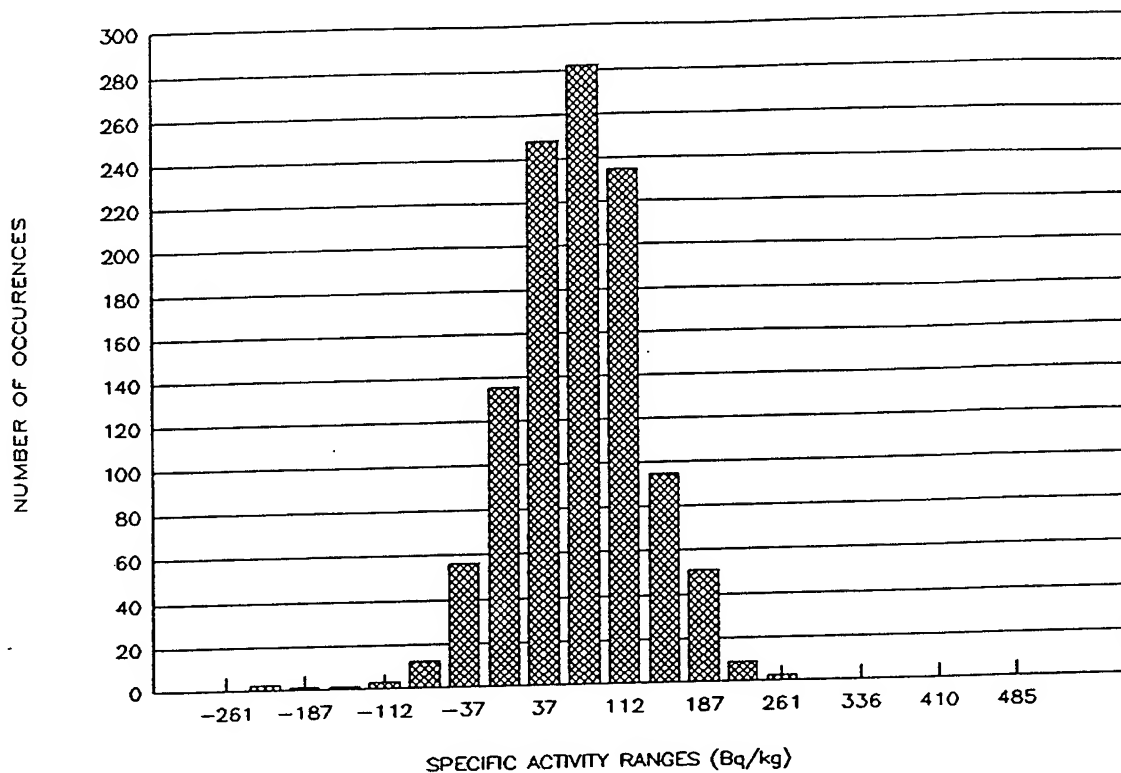
HOT PARTICLE EVENTS	122	SORTS BY ONE GATE ONLY	61
MULTIPARTICLE EVENTS	253	SORTS BY TWO GATES	57
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

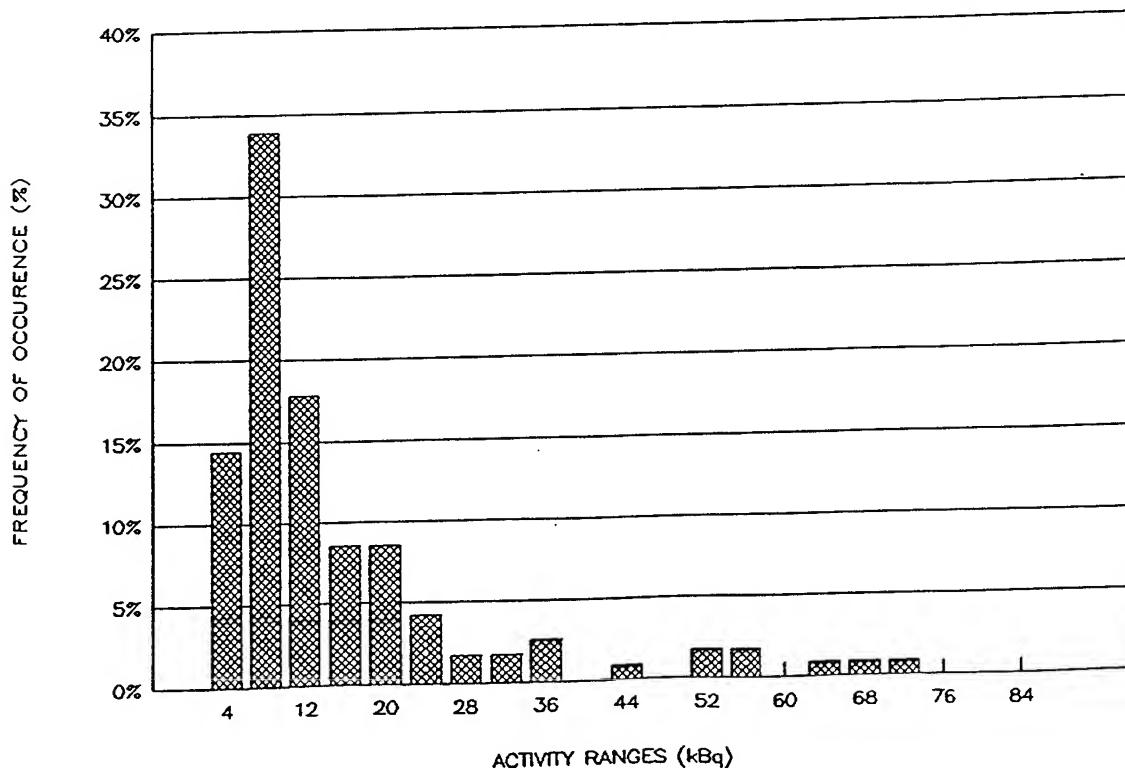
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 19-Feb-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 19-Feb-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 18-Feb-93

AVERAGE BACKGROUND COUNT RATE 0.72 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.20 tons	83.5 tons
MAXIMUM/SORT	3.3 kg	53.6 kg
MINIMUM/SORT	0.7 kg	50.2 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		99.8%
EQUIVALENT SOIL-IN-GROUND	0.16 yd³	66.2 yd³ 66.4 yd³/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	3,482 kBq
MAXIMUM/SORT	504 kBq
MINIMUM/SORT	2.6 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	1,514 kBq	(972)kBq
MAXIMUM/SORT	299 kBq	11 kBq
MINIMUM/SORT	0 Bq	-14 kBq
SPECIFIC ACTIVITY	7,389 Bq/kg	(12)Bq/kg

WORK HISTORY		
WORK DAY START	07:00 AM	WORK DAY END 05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN 05:30 PM
START SOIL PROCESSING	08:40 AM	END SOIL PROCESSING 05:20 PM
LUNCH START	11:30 AM	LUNCH PERIOD 0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	10.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	8.68 hr
DOWN-TIME	1.32 hr
TOTAL SYSTEM PAUSE	1.67 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	1.67 hr
SHUT-DOWN	0.16 hr
PLANT PERFORMANCE	86.8%
PRODUCTIVITY	86.8%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 1,735

NONPROCESS RECORDS (Test, calibration, etc) 10

20-SEC PROCESS RECORDS	1,562
TOTAL SORT	0 MD>0 & MND=0
NO SORT	1,371 AD=0 & MD=0 & MND>0
SOME SORT	191 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0

0<AD<1kBq & MD>0	0	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	None	06:59
ACT_P <5 kBq	53 30.6%		

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 15,620
 2-SEC RECORDS WITH SORTS 173 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 46 82.1%
 3 DETECTORS 9 16.1%
 4 DETECTORS 1 1.8%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 56
 NET 2-SEC RECORDS WITH SORTS 117
 2-SEC PERIODS WITH NO SORTS 15,503
 AVG TIME BETWEEN 2-SEC SORTS 267.0 sec

1-GATE SORTS DETECTR	SORTS	89 FREQ%	ACT_ND (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT FREQX (#)	ACT_P (kBq)
1	6	6.7%	-14000	0	-261	4000	22 12.7%	4
2	10	11.2%	-12000	4	-224	8000	72 41.6%	8
3	8	9.0%	-10000	0	-187	12000	22 12.7%	12
4	23	25.8%	-8000	3	-149	16000	15 8.7%	16
5	19	21.3%	-6000	29	-112	20000	7 4.0%	20
6	11	12.4%	-4000	164	-75	24000	4 2.3%	24
7	6	6.7%	-2000	336	-37	28000	6 3.5%	28
8	6	6.7%	0	418	0	32000	2 1.2%	32
TOTAL	89		2000	324	37	36000	2 1.2%	36
			4000	188	75	40000	2 1.2%	40
			6000	77	112	44000	1 0.6%	44
2-GATE SORTS		84	8000	17	149	48000	1 0.6%	48
DETECTR	SORTS	FREQ%				52000	1 0.6%	52
8			10000	9	187	56000	2 1.2%	56
9	6	7.1%	12000	3	224	60000	2 1.2%	60
10	9	10.7%	14000	0	261	64000	3 1.7%	64
11	16	19.0%	16000	0	299	68000	3 1.7%	68
12	17	20.2%	18000	0	336	72000	0 0.0%	72
13	21	25.0%	20000	0	373	76000	1 0.6%	76
14	8	9.5%	22000	0	410	80000	0 0.0%	80
15	7	8.3%	24000	0	448	84000	0 0.0%	84
TOTAL	84		26000	0	485	84000	0 0.0%	84
			>28000	0	0	>84000	5 2.9%	>84
			TOTAL	1572		TOTAL	173	

SUMMARY TOTALS

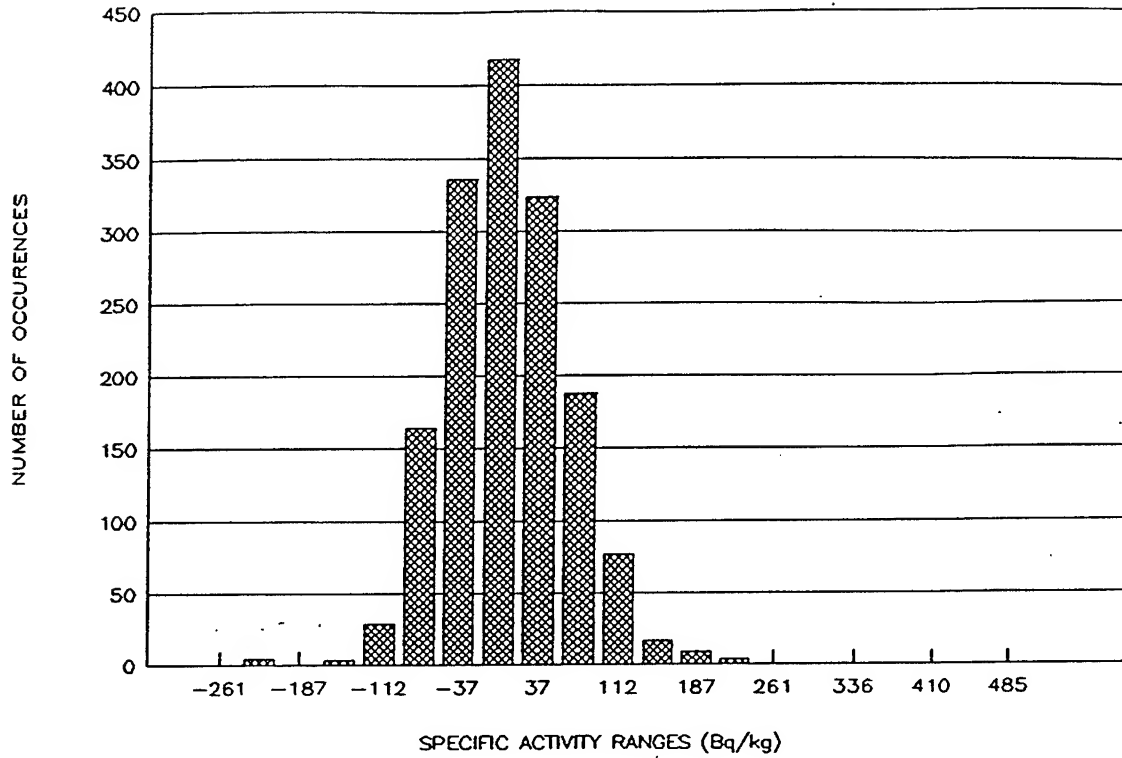
HOT PARTICLE EVENTS	165	SORTS BY ONE GATE ONLY	89
MULTIPARTICLE EVENTS	138	SORTS BY TWO GATES	84
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 18-Feb-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 18-Feb-93

AVERAGE BACKGROUND COUNT RATE	0.79 ± 0.04 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		0.30 tons	58.2 tons
MAXIMUM/SORT		4 kg	53.6 kg
MINIMUM/SORT		0.7 kg	49.5 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			99.5%
EQUIVALENT SOIL-IN-GROUND	0.24 yd ³	46.1 yd ³	46.3 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	1,709 kBq		
MAXIMUM/SORT	126 kBq		
MINIMUM/SORT	2.9 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	1,173 kBq	3,083 kBq	
MINIMUM/SORT	114 kBq	18 kBq	
SPECIFIC ACTIVITY	0 Bq	-13 kBq	
	3,860 Bq/kg	53 Bq/kg	
WORK HISTORY			
WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	10:47 AM	END SOIL PROCESSING	04:51 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr
WORK HOURS		10.0 hr	
AVAILABLE HOURS		10.0 hr	
ACTUAL PROCESS HOURS (total 20-sec records)		6.06 hr	
DOWN-TIME		3.94 hr	
TOTAL SYSTEM PAUSE		3.80 hr	
NONAVAILABLE HOURS		0.0 hr	
START-UP		3.80 hr	
SHUT-DOWN		0.64 hr	
PLANT PERFORMANCE		60.6%	
PRODUCTIVITY		60.6%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)		1,213	
NONPROCESS RECORDS (Test, calibration, etc)		5	
20-SEC PROCESS RECORDS		1,091	
TOTAL SORT		0 MD>0 & MND=0	
NO SORT		768 AD=0 & MD=0 & MND>0	
SOME SORT		323 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS		0	
0<AD<1kBq & MD>0	0		UNEXPLAIN PAUSE
AD=0 & MD	0		TIME TIME
AD<0 & MD	0		None 06:59
ACT_P <5 kBq	31 25.4%		

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 10,910
 2-SEC RECORDS WITH SORTS 122 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 23 79.3%
 3 DETECTORS 6 20.7%
 4 DETECTORS 0 0.0%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 29
 NET 2-SEC RECORDS WITH SORTS 93
 2-SEC PERIODS WITH NO SORTS 10,817
 AVG TIME BETWEEN 2-SEC SORTS 234.6 sec

1-GATE SORTS		64	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%		ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	3	4.7%	-14000	0	-261	4000	11	9.0%	4
2	8	12.5%	-12000	1	-224	8000	53	43.4%	8
3	9	14.1%	-10000	2	-187	12000	24	19.7%	12
4	14	21.9%	-8000	0	-149	16000	8	6.6%	16
5	13	20.3%	-6000	2	-112	20000	6	4.9%	20
6	7	10.9%	-4000	22	-75	24000	4	3.3%	24
7	9	14.1%	-2000	78	-37	28000	1	0.8%	28
8	1	1.6%	0	141	0	32000	4	3.3%	32
TOTAL	64		2000	225	37	36000	2	1.6%	36
			4000	241	75	40000	0	0.0%	40
2-GATE SORTS		58	6000	192	112	44000	0	0.0%	44
DETECTR	SORTS	FREQ%	8000	103	149	48000	1	0.8%	48
8			10000	43	187	52000	0	0.0%	52
9	6	10.3%	12000	18	224	56000	5	4.1%	56
10	13	22.4%	14000	15	261	60000	0	0.0%	60
11	8	13.8%	16000	8	299	64000	0	0.0%	64
12	11	19.0%	18000	5	336	68000	0	0.0%	68
13	5	8.6%	20000	0	373	72000	1	0.8%	72
14	9	15.5%	22000	0	410	76000	0	0.0%	76
15	6	10.3%	24000	0	448	80000	0	0.0%	80
TOTAL	58		26000	0	485	84000	0	0.0%	84
			>28000	0	0	>84000	2	1.6%	>84
			TOTAL	1096		TOTAL	122		

SUMMARY TOTALS

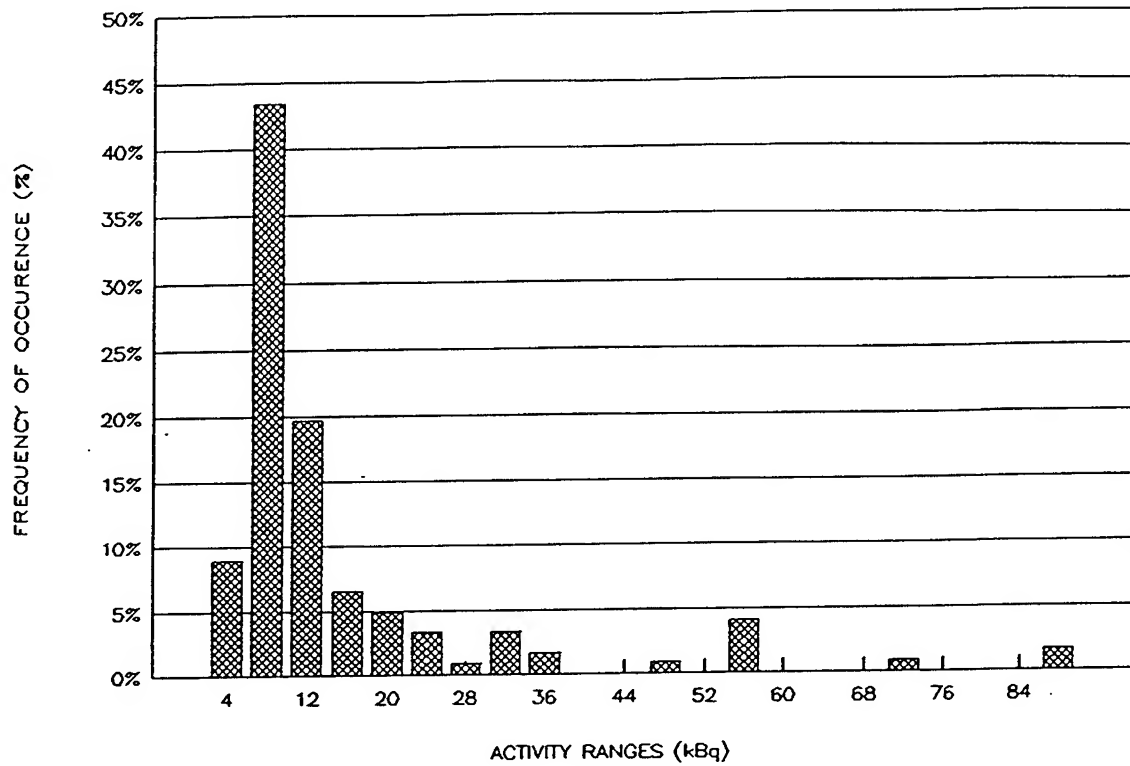
HOT PARTICLE EVENTS	122	SORTS BY ONE GATE ONLY	64
MULTIPARTICLE EVENTS	325	SORTS BY TWO GATES	58
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

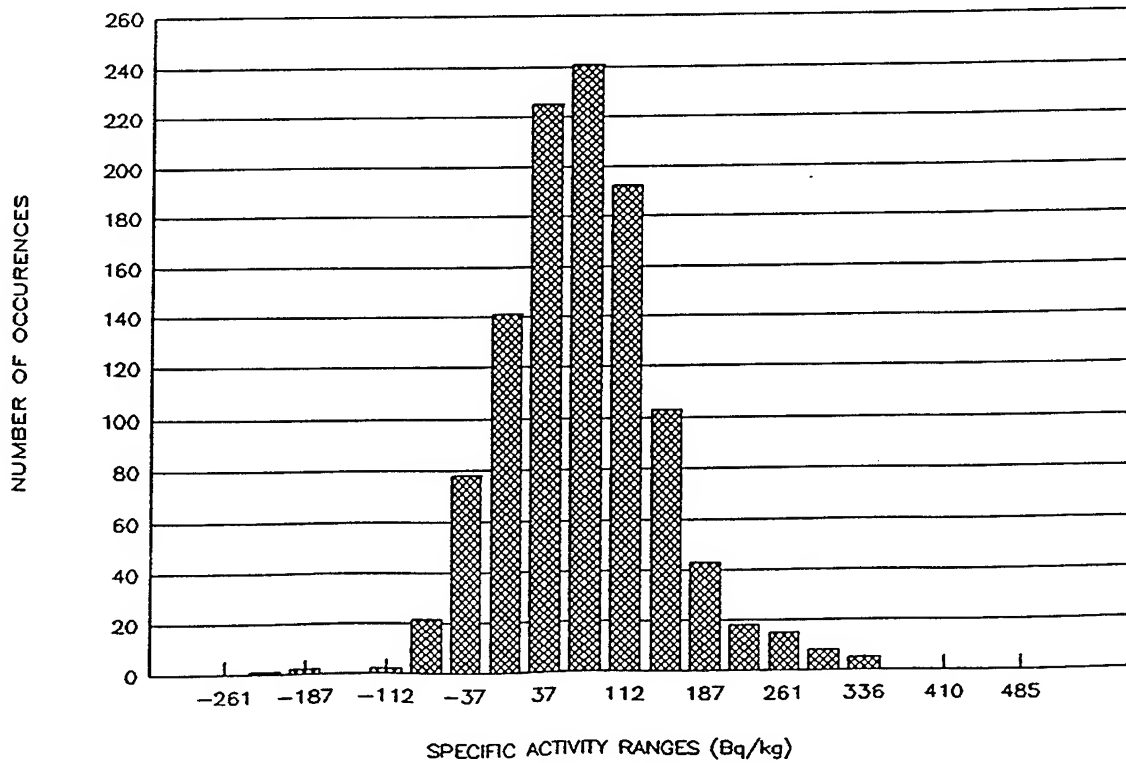
JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 18-Feb-93



CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 18-Feb-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 17-Feb-93

AVERAGE BACKGROUND COUNT RATE	0.79 ± 0.04 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	0.63 tons	93.6 tons	
MAXIMUM/SORT	53.6 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	48.2 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.3%
EQUIVALENT SOIL-IN-GROUND	0.50 yd ³	74.2 yd ³	74.7 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	3,732 kBq		
MAXIMUM/SORT	181 kBq		
MINIMUM/SORT	2.2 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	2,330 kBq	6,031 kBq	
MAXIMUM/SORT	167 kBq	18 kBq	
MINIMUM/SORT	0 Bq	-6 kBq	
SPECIFIC ACTIVITY	3,715 Bq/kg	64 Bq/kg	
WORK HISTORY			
WORK DAY START	06:30 AM	WORK DAY END	05:30 PM
PLANT START-UP	06:30 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	06:54 AM	END SOIL PROCESSING	05:13 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr
WORK HOURS	10.5 hr		
AVAILABLE HOURS	10.5 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	9.77 hr		
DOWN-TIME	0.73 hr		
TOTAL SYSTEM PAUSE	0.56 hr		
NONAVAILABLE HOURS	0.0 hr		
START-UP	0.41 hr		
SHUT-DOWN	0.28 hr		
PLANT PERFORMANCE	93.0%		
PRODUCTIVITY	93.0%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	1,996		
NONPROCESS RECORDS (Test, calibration, etc)	9		
20-SEC PROCESS RECORDS	1,758		
TOTAL SORT	2 MD>0 & MND=0		
NO SORT	1,231 AD=0 & MD=0 & MND>0		
SOME SORT	525 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	0	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	None	06:54
ACT_P <5 kBq	73 30.7%		

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 17,580
 2-SEC RECORDS WITH SORTS 238 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 42 87.5%
 3 DETECTORS 5 10.4%
 4 DETECTORS 1 2.1%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 48
 NET 2-SEC RECORDS WITH SORTS 190
 2-SEC PERIODS WITH NO SORTS 17,390
 AVG TIME BETWEEN 2-SEC SORTS 185.1 sec

1-GATE SORTS		127	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT FREQ%		ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	7	5.5%	-14000	1	-261	4000	33	13.9%	4
2	19	15.0%	-12000	0	-224	8000	98	41.2%	8
3	14	11.0%	-10000	6	-187	12000	28	11.8%	12
4	30	23.6%	-8000	0	-149	16000	24	10.1%	16
5	27	21.3%	-6000	2	-112	20000	8	3.4%	20
6	13	10.2%	-4000	14	-75	24000	4	1.7%	24
7	14	11.0%	-2000	72	-37	28000	9	3.8%	28
8	3	2.4%	0	170	0	32000	6	2.5%	32
TOTAL	127		2000	333	37	36000	6	2.5%	36
			4000	424	75	40000	0	0.0%	40
			6000	381	112	44000	1	0.4%	44
			8000	215	149	48000	2	0.8%	48
			10000	96	187	52000	2	0.8%	52
8			12000	37	224	56000	3	1.3%	56
9	16	14.4%	14000	11	261	60000	3	1.3%	60
10	10	9.0%	16000	2	299	64000	4	1.7%	64
11	17	15.3%	18000	3	336	68000	2	0.8%	68
12	27	24.3%	20000	0	373	72000	0	0.0%	72
13	18	16.2%	22000	0	410	76000	1	0.4%	76
14	13	11.7%	24000	0	448	80000	0	0.0%	80
15	10	9.0%	26000	0	485	84000	1	0.4%	84
TOTAL	111		>28000	0	0	>84000	3	1.3%	>84
			TOTAL	1767		TOTAL	238		

SUMMARY TOTALS

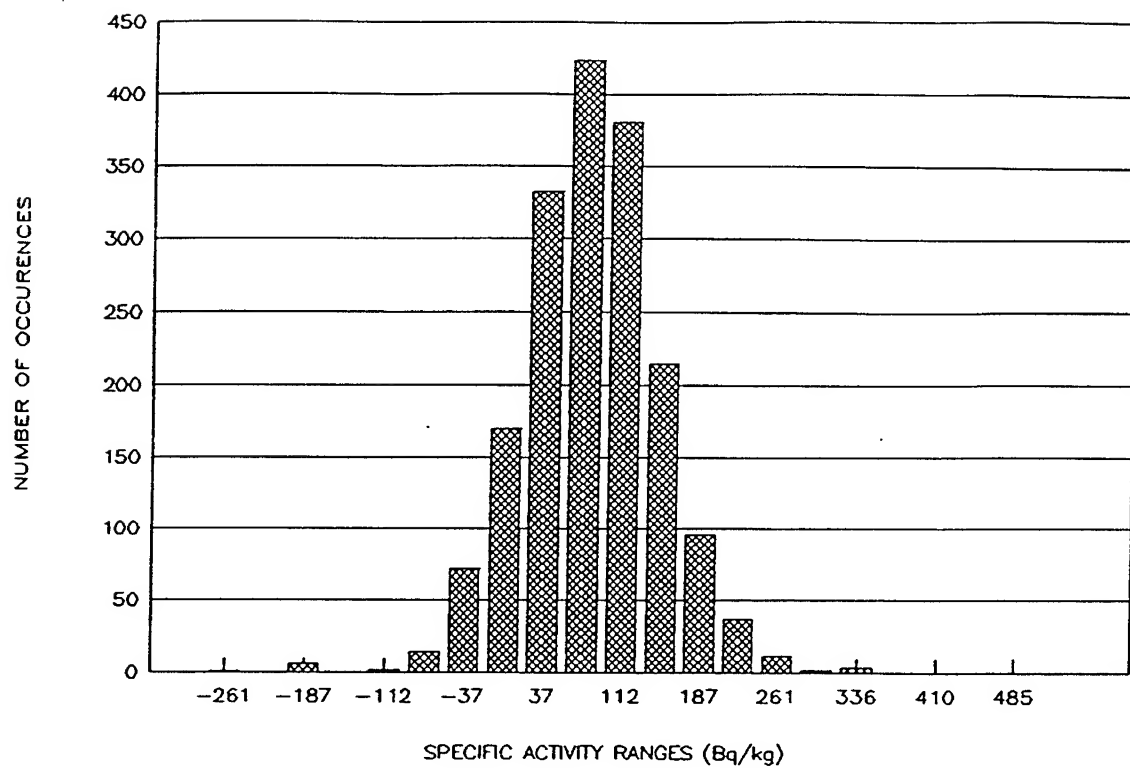
HOT PARTICLE EVENTS	241	SORTS BY ONE GATE ONLY	127
MULTIPARTICLE EVENTS	526	SORTS BY TWO GATES	111
DISTRIBUTED EVENTS	160		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 17-Feb-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 16-Feb-93

AVERAGE BACKGROUND COUNT RATE 0.79 ± 0.03 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.50 tons	93.8 tons
MAXIMUM/SORT	4 kg	53.6 kg
MINIMUM/SORT	0.7 kg	49.5 kg

		99.5%
WEIGHT RECOVERY OR VOLUME RECOVERY		
EQUIVALENT SOIL-IN-GROUND	0.40 yd ³	74.3 yd ³ 74.7 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	4,750 kBq
MAXIMUM/SORT	209 kBq
MINIMUM/SORT	2.7 kBq

	2,581 kBq	5,165 kBq
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY		
MAXIMUM/SORT	159 kBq	16 kBq
MINIMUM/SORT	0 Bq	-11 kBq
SPECIFIC ACTIVITY	5,143 Bq/kg	55 Bq/kg

WORK HISTORY		WORK DAY END	05:30 PM
WORK DAY START	06:30 AM	PLANT SHUT-DOWN	05:30 PM
PLANT START-UP	06:30 AM	END SOIL PROCESSING	05:19 PM
START SOIL PROCESSING	06:50 AM	LUNCH PERIOD	0.5 hr
LUNCH START	11:30 AM		

WORK HOURS	10.5 hr
AVAILABLE HOURS	10.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	9.77 hr
DOWN-TIME	0.73 hr
TOTAL SYSTEM PAUSE	0.72 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.34 hr
SHUT-DOWN	0.17 hr
PLANT PERFORMANCE	93.1%
PRODUCTIVITY	93.1%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 2,012
 NONPROCESS RECORDS (Test, calibration, etc) 9

20-SEC PROCESS RECORDS	1,759
TOTAL SORT	0 MD>0 & MND=0
NO SORT	1,253 AD=0 & MD=0 & MND>0
SOME SORT	506 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0

		UNEXPLAIN	PAUSE
		TIME	TIME
0<AD<1kBq & MD>0	2	09:19:31	06:50
AD=0 & MD	0		
AD<0 & MD	0		
ACT_P <5 kBq	73 28.9%	15:40:31	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 17,590
 2-SEC RECORDS WITH SORTS 253 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 58 84.1%
 3 DETECTORS 9 13.0%
 4 DETECTORS 2 2.9%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 69
 NET 2-SEC RECORDS WITH SORTS 184
 2-SEC PERIODS WITH NO SORTS 17,406
 AVG TIME BETWEEN 2-SEC SORTS 191.2 sec

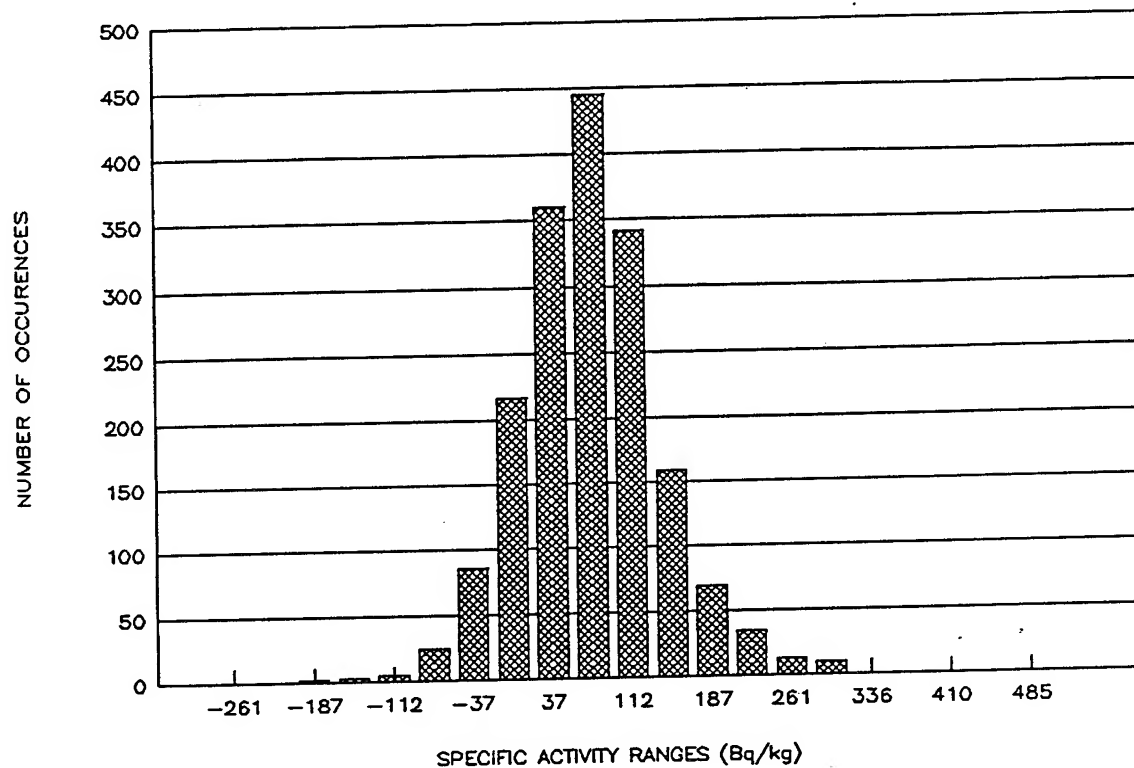
1-GATE SORTS		132	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	4	3.0%	-14000	0	-261	4000	25	9.9%	4
2	16	12.1%	-12000	0	-224	8000	115	45.5%	8
3	13	9.8%	-10000	2	-187	12000	33	13.0%	12
4	31	23.5%	-8000	3	-149	16000	8	3.2%	16
5	28	21.2%	-6000	5	-112	20000	10	4.0%	20
6	20	15.2%	-4000	24	-75	24000	12	4.7%	24
7	15	11.4%	-2000	86	-37	28000	9	3.6%	28
8	5	3.8%	0	217	0	32000	7	2.8%	32
TOTAL	132		2000	360	37	36000	5	2.0%	36
			4000	445	75	40000	1	0.4%	40
2-GATE SORTS		121	6000	341	112	44000	2	0.8%	44
DETECTR	SORTS	FREQ%	8000	159	149	48000	1	0.4%	48
8			10000	69	187	52000	1	0.4%	52
9	7	5.8%	12000	34	224	56000	5	2.0%	56
10	13	10.7%	14000	13	261	60000	2	0.8%	60
11	20	16.5%	16000	10	299	64000	3	1.2%	64
12	28	23.1%	18000	0	336	68000	1	0.4%	68
13	28	23.1%	20000	0	373	72000	1	0.4%	72
14	17	14.0%	22000	0	410	76000	0	0.0%	76
15	8	6.6%	24000	0	448	80000	1	0.4%	80
TOTAL	121		26000	0	485	84000	0	0.0%	84
			>28000	0	0	>84000	11	4.3%	>84
			TOTAL	1768		TOTAL	253		
SUMMARY TOTALS									
HOT PARTICLE EVENTS			252	SORTS BY ONE GATE ONLY			132		
MULTIPARTICLE EVENTS			488	SORTS BY TWO GATES			121		
DISTRIBUTED EVENTS			0						

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

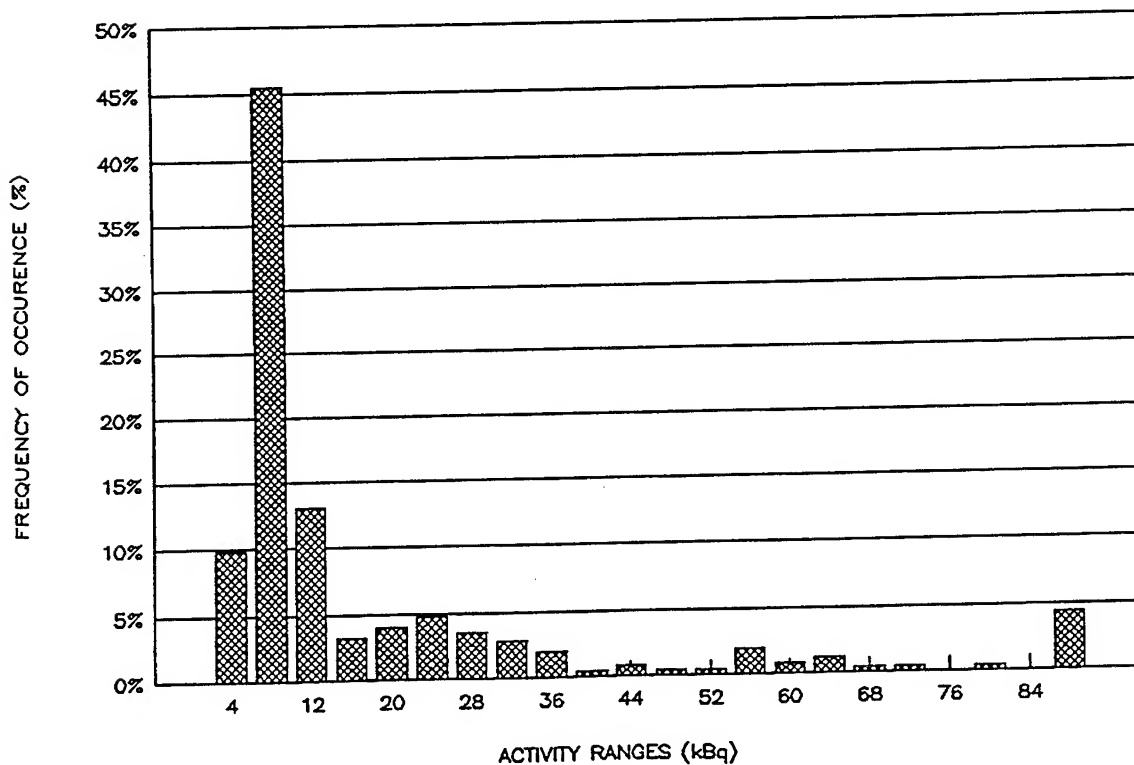
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 16-Feb-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 16-Feb-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 15-Feb-93

AVERAGE BACKGROUND COUNT RATE 0.73 ± 0.05 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.28 tons	72.1 tons
MAXIMUM/SORT	3.3 kg	53.6 kg
MINIMUM/SORT	0.7 kg	50.2 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		99.6%
EQUIVALENT SOIL-IN-GROUND	0.22 yd ³	57.2 yd ³ 57.4 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	4,055 kBq
MAXIMUM/SORT	584 kBq
MINIMUM/SORT	2.5 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	1,684 kBq	(560)kBq
MAXIMUM/SORT	354 kBq	16 kBq
MINIMUM/SORT	0 Bq	-12 kBq
SPECIFIC ACTIVITY	6,044 Bq/kg	(8)Bq/kg

WORK HISTORY

WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	09:34 AM	END SOIL PROCESSING	05:08 PM
LUNCH START	12:00 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	10.5 hr
AVAILABLE HOURS	10.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	7.51 hr
DOWN-TIME	2.99 hr
TOTAL SYSTEM PAUSE	1.33 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	2.58 hr
SHUT-DOWN	0.36 hr
PLANT PERFORMANCE	71.5%
PRODUCTIVITY	71.5%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	1,612
NONPROCESS RECORDS (Test, calibration, etc)	24

20-SEC PROCESS RECORDS	1,351
TOTAL SORT	0 MD>0 & MND=0
NO SORT	1,110 AD=0 & MD=0 & MND>0
SOME SORT	241 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	1
AD=0 & MD	0
AD<0 & MD	0
ACT_P <5 kBq	91 34.9%

UNEXPLAIN	PAUSE
TIME	TIME
13:25:27	08:14

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 13,510
 2-SEC RECORDS WITH SORTS 261 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 56 78.9%
 3 DETECTORS 13 18.3%
 4 DETECTORS 2 2.8%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 71
 NET 2-SEC RECORDS WITH SORTS 190
 2-SEC PERIODS WITH NO SORTS 13,320
 AVG TIME BETWEEN 2-SEC SORTS 142.2 sec

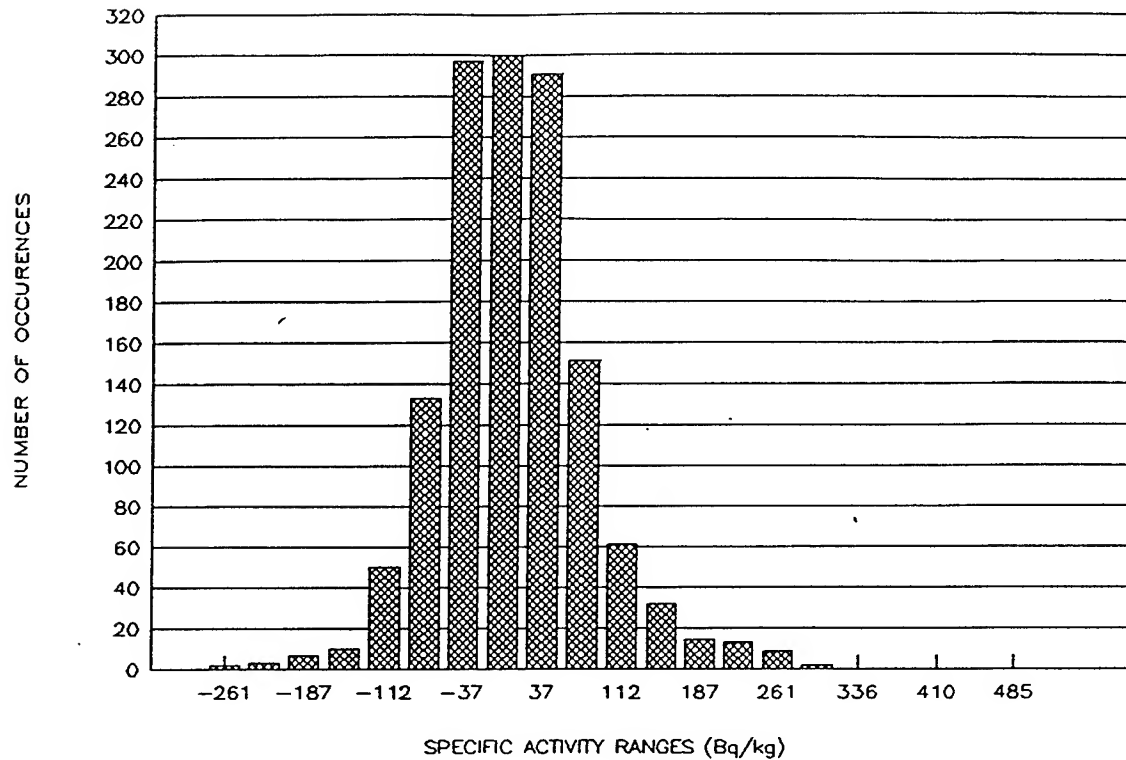
1-GATE SORTS		134	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	2	1.5%	-14000	2	-261	4000	52	19.9%	4
2	13	9.7%	-12000	3	-224	8000	112	42.9%	8
3	16	11.9%	-10000	7	-187	12000	23	8.8%	12
4	18	13.4%	-8000	10	-149	16000	19	7.3%	16
5	33	24.6%	-6000	50	-112	20000	7	2.7%	20
6	27	20.1%	-4000	133	-75	24000	14	5.4%	24
7	20	14.9%	-2000	297	-37	28000	9	3.4%	28
8	5	3.7%	0	300	0	32000	3	1.1%	32
TOTAL	134		2000	291	37	36000	5	1.9%	36
			4000	151	75	40000	2	0.8%	40
2-GATE SORTS		127	6000	61	112	44000	0	0.0%	44
DETECTR	SORTS	FREQ%	8000	32	149	48000	2	0.8%	48
8			10000	14	187	52000	1	0.4%	52
9	8	6.3%	12000	13	224	56000	1	0.4%	56
10	16	12.6%	14000	9	261	60000	2	0.8%	60
11	9	7.1%	16000	2	299	64000	1	0.4%	64
12	25	19.7%	18000	0	336	68000	0	0.0%	68
13	33	26.0%	20000	0	373	72000	4	1.5%	72
14	25	19.7%	22000	0	410	76000	1	0.4%	76
15	11	8.7%	24000	0	448	80000	0	0.0%	80
TOTAL	127		26000	0	485	84000	0	0.0%	84
			>28000	0	0	>84000	3	1.1%	>84
			TOTAL	1375		TOTAL	261		
SUMMARY TOTALS									
HOT PARTICLE EVENTS			259	SORTS BY ONE GATE ONLY			134		
MULTIPARTICLE EVENTS			157	SORTS BY TWO GATES			127		
DISTRIBUTED EVENTS			0						

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 15-Feb-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 15-Feb-93

AVERAGE BACKGROUND COUNT RATE	0.79 ± 0.03 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	0.38 tons	71.8 tons	
MAXIMUM/SORT	4.7 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	48.9 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.5%
EQUIVALENT SOIL-IN-GROUND	0.30 yd ³	56.9 yd ³	57.2 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	4,372 kBq		
MAXIMUM/SORT	563 kBq		
MINIMUM/SORT	3.2 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	2,268 kBq	3,217 kBq	
MINIMUM/SORT	444 kBq	18 kBq	
SPECIFIC ACTIVITY	0 Bq	-12 kBq	
	6,024 Bq/kg	45 Bq/kg	
WORK HISTORY			
WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	09:35 AM	END SOIL PROCESSING	05:09 PM
LUNCH START	12:00 AM	LUNCH PERIOD	0.0 hr
WORK HOURS		10.5 hr	
AVAILABLE HOURS		10.5 hr	
ACTUAL PROCESS HOURS (total 20-sec records)		7.48 hr	
DOWN-TIME		3.02 hr	
TOTAL SYSTEM PAUSE		1.33 hr	
NONAVAILABLE HOURS		0.0 hr	
START-UP		2.59 hr	
SHUT-DOWN		0.34 hr	
PLANT PERFORMANCE		71.3%	
PRODUCTIVITY		71.3%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)		1,567	
NONPROCESS RECORDS (Test, calibration, etc)		29	
20-SEC PROCESS RECORDS		1,347	
TOTAL SORT		0 MD>0 & MND=0	
NO SORT		987 AD=0 & MD=0 & MND>0	
SOME SORT		360 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS		0	
0<AD<1kBq & MD>0	1		UNEXPLAIN PAUSE
AD=0 & MD	0		TIME TIME
AD<0 & MD	0		11:00:28 08:14
ACT_P <5 kBq	55 25.0%		

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 13,470
 2-SEC RECORDS WITH SORTS 220 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 47 81.0%
 3 DETECTORS 10 17.2%
 4 DETECTORS 1 1.7%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 58
 NET 2-SEC RECORDS WITH SORTS 162
 2-SEC PERIODS WITH NO SORTS 13,308
 AVG TIME BETWEEN 2-SEC SORTS 166.3 sec

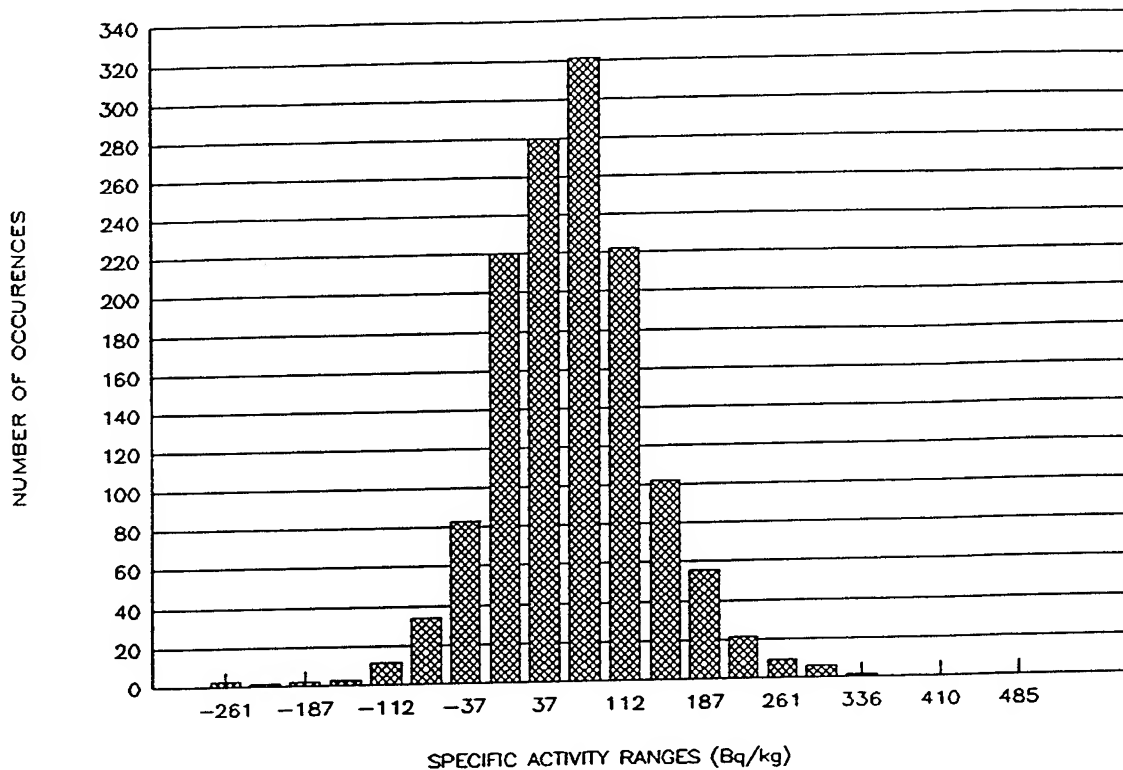
1-GATE SORTS DETECTR	SORTS	118 FREQ%	ACT_NO (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT FREQ (#)	ACT_P (kBq)
1	7	5.9%	-14000	3	-261	4000	25 11.3%	4
2	16	13.6%	-12000	1	-224	8000	89 40.3%	8
3	16	13.6%	-10000	2	-187	12000	30 13.6%	12
4	26	22.0%	-8000	3	-149	16000	14 6.3%	16
5	22	18.6%	-6000	11	-112	20000	14 6.3%	20
6	18	15.3%	-4000	34	-75	24000	5 2.3%	24
7	12	10.2%	-2000	83	-37	28000	2 0.9%	28
8	1	0.8%	0	220	0	32000	5 2.3%	32
TOTAL	118		2000	280	37	36000	6 2.7%	36
			4000	321	75	40000	2 0.9%	40
2-GATE SORTS		102	6000	222	112	44000	6 2.7%	44
DETECTR	SORTS	FREQ%	8000	102	149	48000	2 0.9%	48
8			10000	56	187	52000	2 0.9%	52
9	11	10.7%	12000	21	224	56000	3 1.4%	56
10	13	12.6%	14000	9	261	60000	2 0.9%	60
11	18	17.5%	16000	6	299	64000	3 1.4%	64
12	26	25.2%	18000	1	336	68000	3 1.4%	68
13	17	16.5%	20000	0	373	72000	3 1.4%	72
14	12	11.7%	22000	0	410	76000	2 0.9%	76
15	6	5.8%	24000	0	448	80000	0 0.0%	80
TOTAL	103		26000	0	485	84000	0 0.0%	84
			>28000	0	0	>84000	3 1.4%	>84
			TOTAL	1375		TOTAL	221	
SUMMARY TOTALS								
HOT PARTICLE EVENTS			215	SORTS BY ONE GATE ONLY			118	
MULTIPARTICLE EVENTS			342	SORTS BY TWO GATES			102	
DISTRIBUTED EVENTS			0					

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

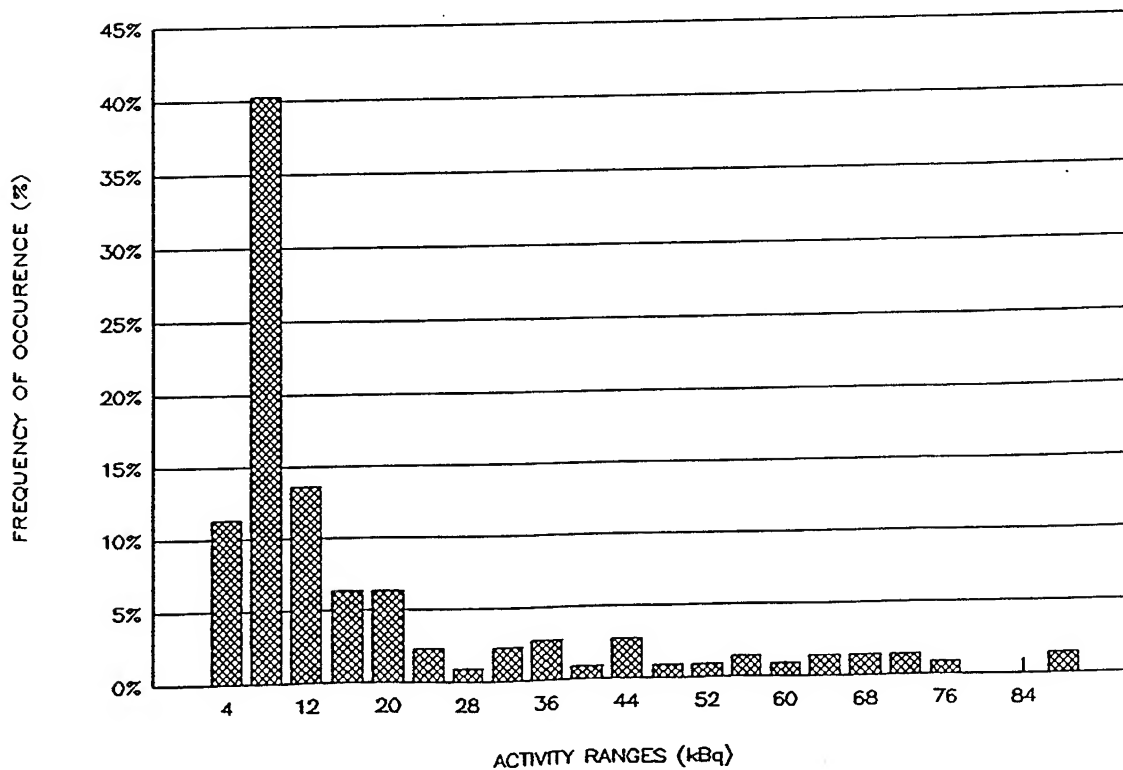
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 15-Feb-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 15-Feb-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 12-Feb-93

AVERAGE BACKGROUND COUNT RATE 0.71 ± 0.06 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.27 tons	15.9 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	47.5 kg

		98.3%
WEIGHT RECOVERY OR VOLUME RECOVERY		
EQUIVALENT SOIL-IN-GROUND	0.22 yd ³	12.6 yd ³ 12.8 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	6,832 kBq
MAXIMUM/SORT	2,251 kBq
MINIMUM/SORT	2.6 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	2,556 kBq	1,157 kBq
MAXIMUM/SORT	1622 kBq	19 kBq
MINIMUM/SORT	0 Bq	-7 kBq
SPECIFIC ACTIVITY	9,356 Bq/kg	73 Bq/kg

WORK HISTORY

WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:04 AM	PLANT SHUT-DOWN	05:16 PM
START SOIL PROCESSING	03:34 PM	END SOIL PROCESSING	05:14 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	9.7 hr
ACTUAL PROCESS HOURS (total 20-sec records)	1.67 hr
DOWN-TIME	8.03 hr
TOTAL SYSTEM PAUSE	5.98 hr
NONAVAILABLE HOURS	0.3 hr
START-UP	8.52 hr
SHUT-DOWN	0.02 hr
PLANT PERFORMANCE	17.2%
PRODUCTIVITY	16.7%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	443
NONPROCESS RECORDS (Test, calibration, etc)	794

20-SEC PROCESS RECORDS	301
TOTAL SORT	2 MD>0 & MND=0
NO SORT	188 AD=0 & MD=0 & MND>0
SOME SORT	111 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	0
AD=0 & MD	0
AD<0 & MD	0
ACT_P <5 kBq	38 26.8%

UNEXPLAIN	PAUSE
TIME	TIME
None	07:04
	10:46

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 3,010
 2-SEC RECORDS WITH SORTS 142 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 31 81.6%
 3 DETECTORS 6 15.8%
 4 DETECTORS 1 2.6%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 38
 NET 2-SEC RECORDS WITH SORTS 104
 2-SEC PERIODS WITH NO SORTS 2,906
 AVG TIME BETWEEN 2-SEC SORTS 57.9 sec

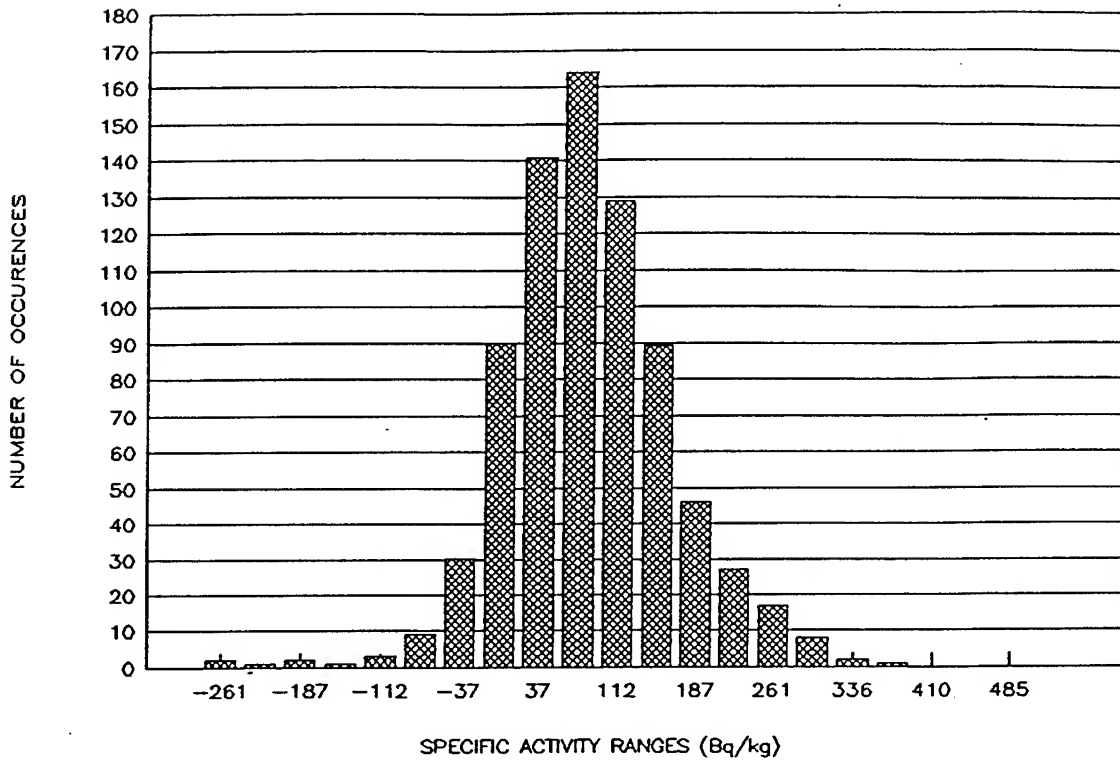
1-GATE SORTS		70	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQX		ACT_P
DETECTR	SORTS	FREQX	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	7	2.8%	-14000	2	-261	4000	80	16.8%	4
2	26	10.5%	-12000	1	-224	8000	181	38.1%	8
3	25	10.1%	-10000	2	-187	12000	65	13.7%	12
4	36	14.5%	-8000	1	-149	16000	44	9.3%	16
5	49	19.8%	-6000	3	-112	20000	27	5.7%	20
6	55	22.2%	-4000	9	-75	24000	19	4.0%	24
7	36	14.5%	-2000	30	-37	28000	7	1.5%	28
8	14	5.6%	0	90	0	32000	11	2.3%	32
TOTAL	248		2000	141	37	36000	7	1.5%	36
			4000	164	75	40000	3	0.6%	40
			6000	129	112	44000	4	0.8%	44
2-GATE SORTS		72	8000	89	149	48000	3	0.6%	48
DETECTR	SORTS	FREQX	10000	46	187	52000	0	0.0%	52
8			12000	27	224	56000	3	0.6%	56
9	15	6.6%	14000	17	261	60000	3	0.6%	60
10	19	8.4%	16000	8	299	64000	2	0.4%	64
11	34	15.0%	18000	2	336	68000	3	0.6%	68
12	41	18.1%	20000	1	373	72000	1	0.2%	72
13	56	24.7%	22000	0	410	76000	1	0.2%	76
14	38	16.7%	24000	0	448	80000	0	0.0%	80
15	24	10.6%	26000	0	485	84000	1	0.2%	84
TOTAL	227		>28000	0	0	>84000	10	2.1%	>84
			TOTAL	762		TOTAL	475		
SUMMARY TOTALS									
HOT PARTICLE EVENTS			142	SORTS BY ONE GATE ONLY			70		
MULTIPARTICLE EVENTS			111	SORTS BY TWO GATES			72		
DISTRIBUTED EVENTS			154						

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

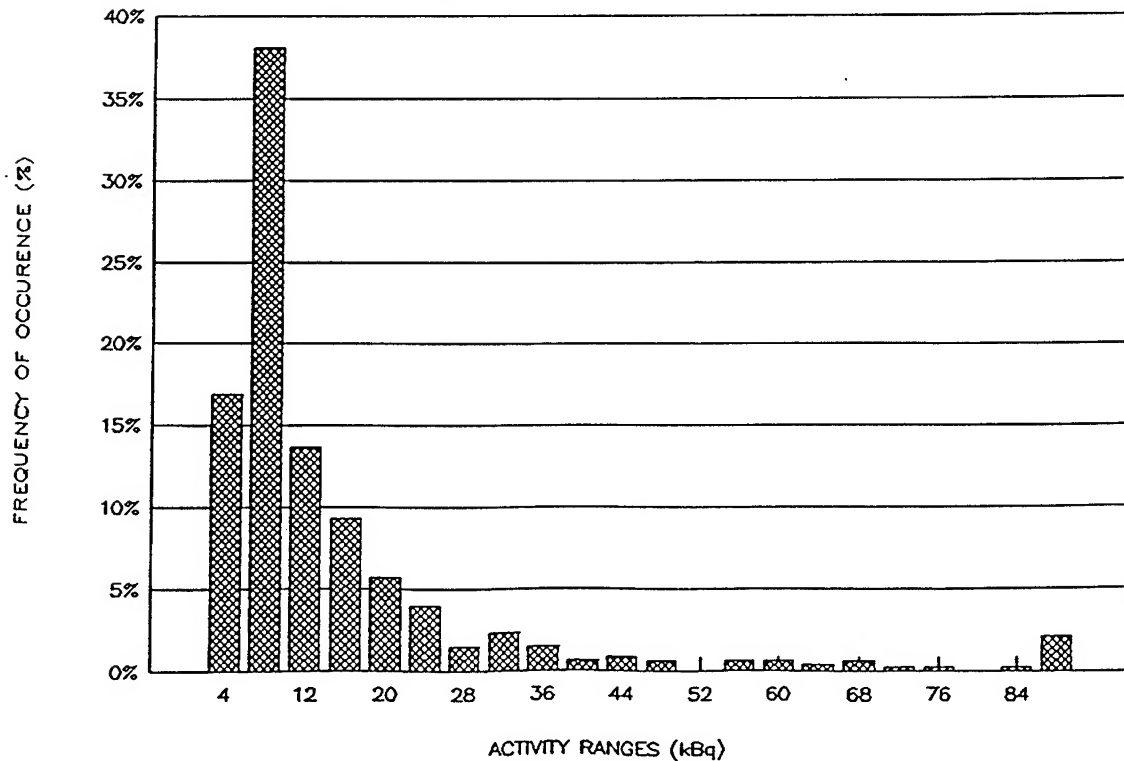
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 12-Feb-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 12-Feb-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 12-Feb-93

AVERAGE BACKGROUND COUNT RATE 0.76 ± 0.07 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.39 tons	15.8 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	46.2 kg

		97.6%
WEIGHT RECOVERY OR VOLUME RECOVERY		
EQUIVALENT SOIL-IN-GROUND	0.31 yd ³	12.5 yd ³ 12.8 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	1,772 kBq
MAXIMUM/SORT	132 kBq
MINIMUM/SORT	2.7 kBq

	1,031 kBq	232 kBq
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY		
MAXIMUM/SORT	105 kBq	17 kBq
MINIMUM/SORT	0 Bq	-10 kBq
SPECIFIC ACTIVITY	2,667 Bq/kg	15 Bq/kg

WORK HISTORY

WORK DAY START 07:00 AM
 PLANT START-UP 07:04 AM
 START SOIL PROCESSING 03:34 PM
 LUNCH START 11:30 AM

WORK DAY END 05:30 PM
 PLANT SHUT-DOWN 05:16 PM
 END SOIL PROCESSING 05:14 PM
 LUNCH PERIOD 0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	9.7 hr
ACTUAL PROCESS HOURS (total 20-sec records)	1.68 hr
DOWN-TIME	8.02 hr
TOTAL SYSTEM PAUSE	6.07 hr
NONAVAILABLE HOURS	0.3 hr
START-UP	8.50 hr
SHUT-DOWN	0.02 hr
PLANT PERFORMANCE	17.3%
PRODUCTIVITY	16.8%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 438
 NONPROCESS RECORDS (Test, calibration, etc) 757

20-SEC PROCESS RECORDS

TOTAL SORT	302
NO SORT	4 MD>0 & MND=0
SOME SORT	172 AD=0 & MD=0 & MND>0
UNEXPLAINED RECORDS	126 AD>0&0<MD<MNDmax&MND<MNDmax
0<AD<1kBq & MD>0	0
AD=0 & MD	0
AD<0 & MD	0
ACT_P <5 kBq	32 23.5%

UNEXPLAIN	PAUSE
TIME	TIME
None	07:04
	10:41

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 3,020
 2-SEC RECORDS WITH SORTS 136 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 30 85.7%
 3 DETECTORS 5 14.3%
 4 DETECTORS 0 0.0%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 35
 NET 2-SEC RECORDS WITH SORTS 101
 2-SEC PERIODS WITH NO SORTS 2,919
 AVG TIME BETWEEN 2-SEC SORTS 59.8 sec

1-GATE SORTS DETECTR	SORTS	68 FREQ%	ACT_ND (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT (#)	FREQ%	ACT_P (kBq)
1	7	3.1%	-14000	12	-261	4000	43	9.6%	4
2	30	13.2%	-12000	7	-224	8000	169	37.6%	8
3	41	18.1%	-10000	10	-187	12000	67	14.9%	12
4	38	16.7%	-8000	28	-149	16000	40	8.9%	16
5	32	14.1%	-6000	52	-112	20000	15	3.3%	20
6	34	15.0%	-4000	100	-75	24000	20	4.5%	24
7	34	15.0%	-2000	128	-37	28000	15	3.3%	28
8	11	4.8%	0	140	0	32000	7	1.6%	32
TOTAL	227		2000	80	37	36000	3	0.7%	36
			4000	63	75	40000	10	2.2%	40
2-GATE SORTS		68	6000	42	112	44000	8	1.8%	44
DETECTR	SORTS	FREQ%	8000	29	149	48000	6	1.3%	48
8			10000	21	187	52000	9	2.0%	52
9	19	8.6%	12000	7	224	56000	6	1.3%	56
10	32	14.4%	14000	16	261	60000	2	0.4%	60
11	41	18.5%	16000	5	299	64000	9	2.0%	64
12	43	19.4%	18000	6	336	68000	1	0.2%	68
13	31	14.0%	20000	0	373	72000	1	0.2%	72
14	33	14.9%	22000	0	410	76000	0	0.0%	76
15	23	10.4%	24000	0	448	80000	1	0.2%	80
TOTAL	222		26000	0	485	84000	2	0.4%	84
			>28000	0	0	>84000	15	3.3%	>84
			TOTAL	746		TOTAL	449		

SUMMARY TOTALS

HOT PARTICLE EVENTS	138	SORTS BY ONE GATE ONLY	68
MULTIPARTICLE EVENTS	124	SORTS BY TWO GATES	68
DISTRIBUTED EVENTS	313		

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 11-Feb-93

AVERAGE BACKGROUND COUNT RATE 0.70 ± 0.02 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	3.22 tons	89.1 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	40.8 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		96.5%
EQUIVALENT SOIL-IN-GROUND	2.55 yd³	70.6 yd³ 73.2 yd³/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	51,709 kBq
MAXIMUM/SORT	1,710 kBq
MINIMUM/SORT	2.4 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY		
MAXIMUM/SORT	22,699 kBq	11,593 kBq
MINIMUM/SORT	913 kBq	18 kBq
SPECIFIC ACTIVITY	0 Bq	-9 kBq
	7,057 Bq/kg	130 Bq/kg

WORK HISTORY

WORK DAY START	07:00 AM
PLANT START-UP	07:00 AM
START SOIL PROCESSING	07:31 AM
LUNCH START	11:30 AM

WORK DAY END	05:30 PM
PLANT SHUT-DOWN	05:06 PM
END SOIL PROCESSING	05:05 PM
LUNCH PERIOD	0.0 hr

WORK HOURS	10.5 hr
AVAILABLE HOURS	10.1 hr
ACTUAL PROCESS HOURS (total 20-sec records)	9.57 hr
DOWN-TIME	0.53 hr
TOTAL SYSTEM PAUSE	0.52 hr
NONAVAILABLE HOURS	0.4 hr
START-UP	0.53 hr
SHUT-DOWN	0.00 hr
PLANT PERFORMANCE	94.8%
PRODUCTIVITY	91.2%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	4,768
NONPROCESS RECORDS (Test, calibration, etc)	3

20-SEC PROCESS RECORDS

TOTAL SORT	1,723
NO SORT	3 MD>0 & MND=0
SOME SORT	397 AD=0 & MD=0 & MND>0
UNEXPLAINED RECORDS	1,323 AD>0&0<MD<MNDmax&MND<MNDmax

0<AD<1kBq & MD>0	0	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	None	07:00
ACT_P <5 kBq	890 29.2%		

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 17,230
 2-SEC RECORDS WITH SORTS 3,045 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 683 78.6%
 3 DETECTORS 151 17.4%
 4 DETECTORS 28 3.2%
 5 DETECTORS 7 0.8%
 6 DETECTORS 0 0.0%
 7 DETECTORS 1 0.1%
 8 DETECTORS 1 0.1%
 TOTAL 869
 NET 2-SEC RECORDS WITH SORTS 2,176
 2-SEC PERIODS WITH NO SORTS 15,054
 AVG TIME BETWEEN 2-SEC SORTS 15.8 sec

1-GATE SORTS	1557	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%	ACT_P		
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)	
1	43	2.8%	-14000	0	-261	4000	464	15.2%	4
2	138	8.9%	-12000	0	-224	8000	1232	40.5%	8
3	212	13.6%	-10000	1	-187	12000	479	15.7%	12
4	243	15.6%	-8000	2	-149	16000	247	8.1%	16
5	310	19.9%	-6000	1	-112	20000	133	4.4%	20
6	256	16.4%	-4000	6	-75	24000	99	3.3%	24
7	242	15.5%	-2000	22	-37	28000	60	2.0%	28
8	113	7.3%	0	62	0	32000	49	1.6%	32
TOTAL	1557		2000	123	37	36000	37	1.2%	36
			4000	243	75	40000	32	1.1%	40
2-GATE SORTS	1488		6000	320	112	44000	23	0.8%	44
DETECTR	SORTS	FREQ%	8000	301	149	48000	22	0.7%	48
8			10000	256	187	52000	13	0.4%	52
9	77	5.2%	12000	189	224	56000	12	0.4%	56
10	175	11.8%	14000	128	261	60000	17	0.6%	60
11	229	15.4%	16000	51	299	64000	10	0.3%	64
12	264	17.7%	18000	19	336	68000	12	0.4%	68
13	315	21.2%	20000	2	373	72000	7	0.2%	72
14	230	15.5%	22000	0	410	76000	3	0.1%	76
15	198	13.3%	24000	0	448	80000	9	0.3%	80
TOTAL	1488		26000	0	485	84000	5	0.2%	84
			>28000	0	0	>84000	80	2.6%	>84
			TOTAL	1726		TOTAL	3045		

SUMMARY TOTALS

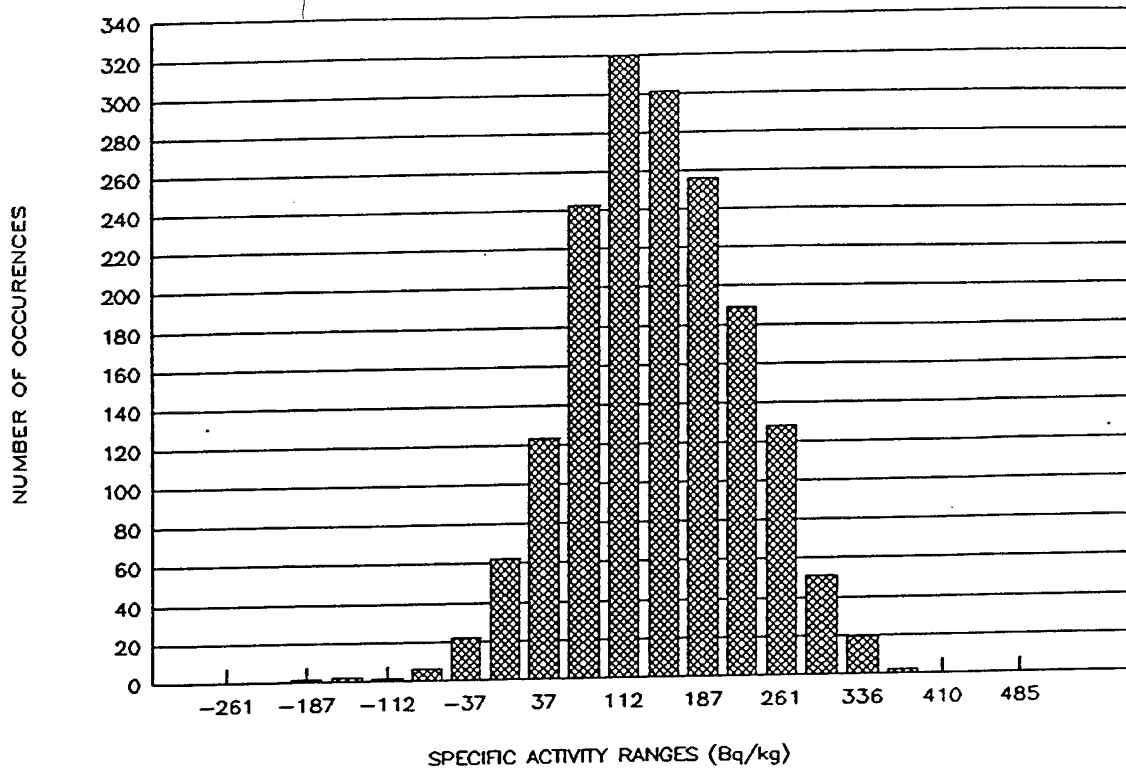
HOT PARTICLE EVENTS	2929	SORTS BY ONE GATE ONLY	1557
MULTIPARTICLE EVENTS	1662	SORTS BY TWO GATES	1488
DISTRIBUTED EVENTS	223		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

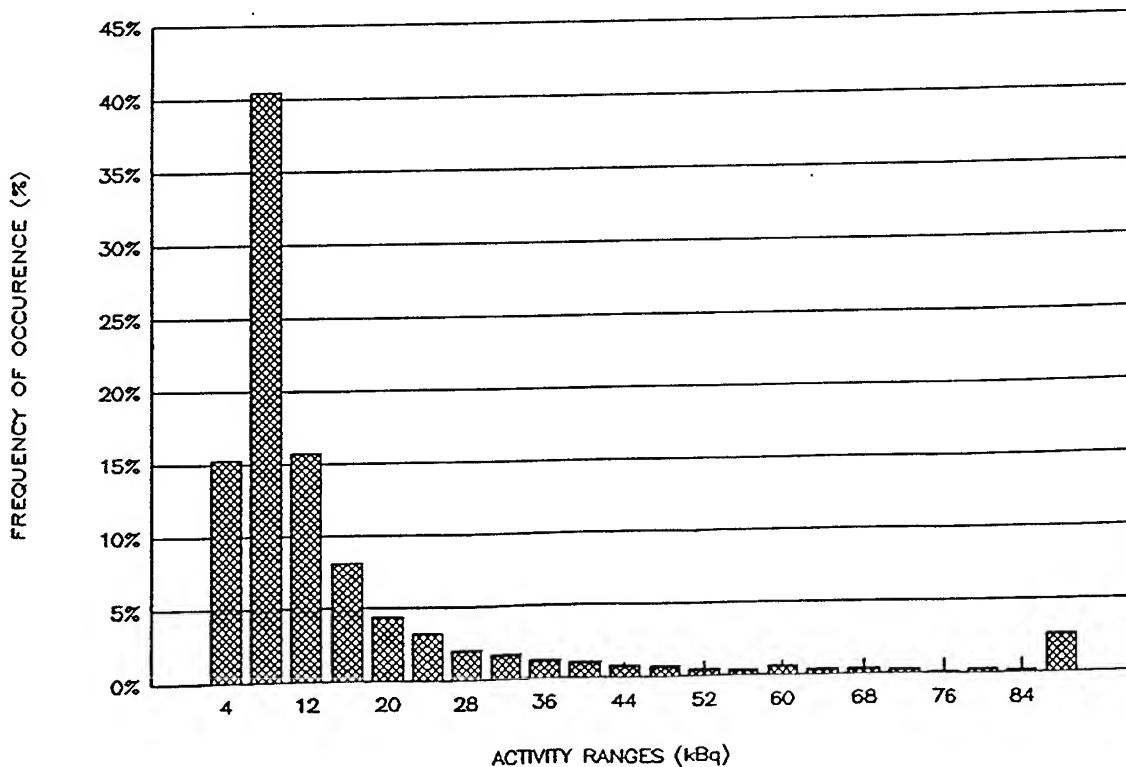
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 11-Feb-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 11-Feb-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 11-Feb-93

AVERAGE BACKGROUND COUNT RATE 0.80 \pm 0.02 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	8.28 tons	83.9 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	41.5 kg

		91.0%
WEIGHT RECOVERY OR VOLUME RECOVERY		
EQUIVALENT SOIL-IN-GROUND	6.56 yd ³	66.5 yd ³ 73.1 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	92,906 kBq
MAXIMUM/SORT	9,252 kBq
MINIMUM/SORT	2.2 kBq

	42,557 kBq	15,133 kBq
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY		
MAXIMUM/SORT	6592 kBq	18 kBq
MINIMUM/SORT	0 Bq	-9 kBq
SPECIFIC ACTIVITY	5,142 Bq/kg	180 Bq/kg

WORK HISTORY

WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:06 PM
START SOIL PROCESSING	07:31 AM	END SOIL PROCESSING	05:05 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.0 hr

WORK HOURS	10.5 hr
AVAILABLE HOURS	10.1 hr
ACTUAL PROCESS HOURS (total 20-sec records)	9.56 hr
DOWN-TIME	0.54 hr
TOTAL SYSTEM PAUSE	0.52 hr
NONAVAILABLE HOURS	0.4 hr
START-UP	0.53 hr
SHUT-DOWN	0.01 hr
PLANT PERFORMANCE	94.7%
PRODUCTIVITY	91.1%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 5,372

NONPROCESS RECORDS (Test, calibration, etc) 5

20-SEC PROCESS RECORDS

TOTAL SORT	81 MD>0 & MND=0
NO SORT	208 AD=0 & MD=0 & MND>0
SOME SORT	1,432 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0

		UNEXPLAIN	PAUSE
		TIME	TIME
0<AD<1kBq & MD>0	2	13:37:37	07:00
AD=0 & MD	0		
AD<0 & MD	0		
ACT_P <5 kBq	885 24.2%	15:24:37	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 17,210
 2-SEC RECORDS WITH SORTS 3,651 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 873 77.6%
 3 DETECTORS 197 17.5%
 4 DETECTORS 40 3.6%
 5 DETECTORS 15 1.3%
 6 DETECTORS 0 0.0%
 7 DETECTORS 1 0.1%
 8 DETECTORS 0 0.0%
 TOTAL 1125
 NET 2-SEC RECORDS WITH SORTS 2,526
 2-SEC PERIODS WITH NO SORTS 14,684
 AVG TIME BETWEEN 2-SEC SORTS 13.6 sec

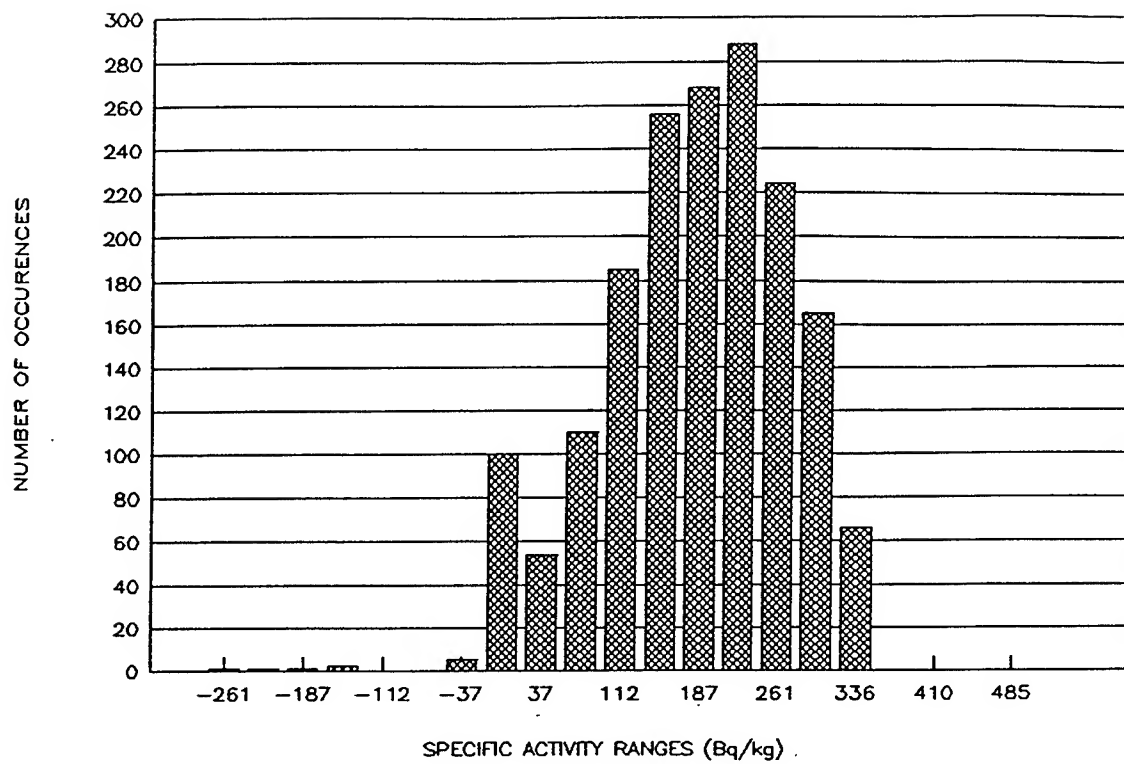
1-GATE SORTS		1894	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	80	4.2%	-14000	1	-261	4000	377	10.3%	4
2	277	14.6%	-12000	1	-224	8000	1565	42.9%	8
3	335	17.7%	-10000	1	-187	12000	558	15.3%	12
4	309	16.3%	-8000	2	-149	16000	314	8.6%	16
5	312	16.5%	-6000	0	-112	20000	193	5.3%	20
6	313	16.5%	-4000	0	-75	24000	140	3.8%	24
7	213	11.2%	-2000	5	-37	28000	74	2.0%	28
8	55	2.9%	0	100	0	32000	61	1.7%	32
TOTAL	1894		2000	54	37	36000	47	1.3%	36
			4000	110	75	40000	29	0.8%	40
			6000	185	112	44000	30	0.8%	44
2-GATE SORTS		1757	8000	256	149	48000	27	0.7%	48
DETECTR	SORTS	FREQ%	10000	268	187	52000	23	0.6%	52
8			12000	288	224	56000	25	0.7%	56
9	149	8.5%	14000	224	261	60000	12	0.3%	60
10	255	14.5%	16000	165	299	64000	11	0.3%	64
11	317	18.0%	18000	66	336	68000	14	0.4%	68
12	322	18.3%	20000	0	373	72000	9	0.2%	72
13	293	16.7%	22000	0	410	76000	5	0.1%	76
14	270	15.4%	24000	0	448	80000	9	0.2%	80
15	151	8.6%	26000	0	485	84000	6	0.2%	84
TOTAL	1757		>28000	0	0	>84000	122	3.3%	>84
			TOTAL	1726		TOTAL	3651		
SUMMARY TOTALS									
HOT PARTICLE EVENTS			3487	SORTS BY ONE GATE ONLY			1894		
MULTIPARTICLE EVENTS			3016	SORTS BY TWO GATES			1757		
DISTRIBUTED EVENTS			5863						

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

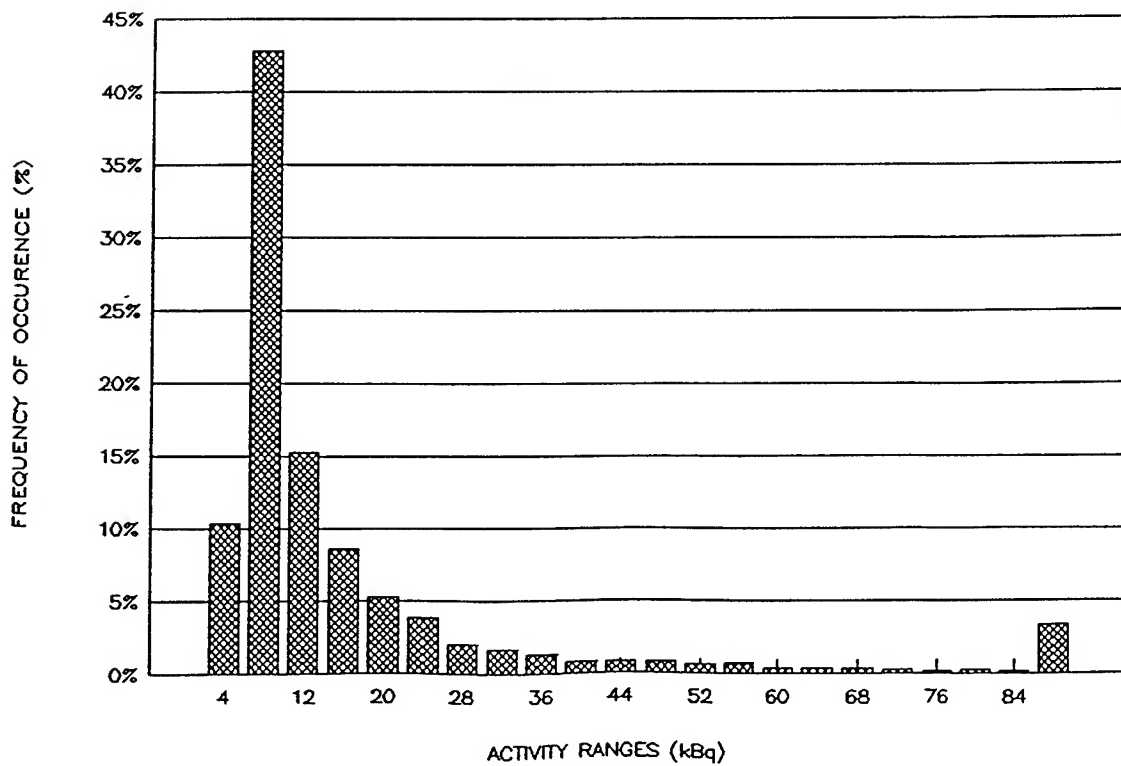
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 11-Feb-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 11-Feb-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 10-Feb-93

AVERAGE BACKGROUND COUNT RATE 0.71 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	1.91 tons	79.2 tons
MAXIMUM/SORT	11.4 kg	53.6 kg
MINIMUM/SORT	0.7 kg	42.2 kg

			97.6%
WEIGHT RECOVERY OR VOLUME RECOVERY			
EQUIVALENT SOIL-IN-GROUND	1.51 yd ³	62.7 yd ³	64.3 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	33,087 kBq
MAXIMUM/SORT	897 kBq
MINIMUM/SORT	2.1 kBq

	14,216 kBq	4,490 kBq
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY		
MAXIMUM/SORT	574 kBq	16 kBq
MINIMUM/SORT	0 Bq	-9 kBq
SPECIFIC ACTIVITY	7,445 Bq/kg	57 Bq/kg

WORK HISTORY

WORK DAY START 07:00 AM
 PLANT START-UP 07:00 AM
 START SOIL PROCESSING 08:35 AM
 LUNCH START 11:30 AM

WORK DAY END 05:30 PM
 PLANT SHUT-DOWN 05:30 PM
 END SOIL PROCESSING 04:59 PM
 LUNCH PERIOD 0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	10.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	8.41 hr
DOWN-TIME	1.59 hr
TOTAL SYSTEM PAUSE	1.50 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	1.59 hr
SHUT-DOWN	0.51 hr
PLANT PERFORMANCE	84.1%
PRODUCTIVITY	84.1%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 3,560
 NONPROCESS RECORDS (Test, calibration, etc) 9

20-SEC PROCESS RECORDS

TOTAL SORT	1,513	0 MD>0 & MND=0
NO SORT	718	AD=0 & MD=0 & MND>0
SOME SORT	795	AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0	
0<AD<1kBq & MD>0	2	
AD=0 & MD	0	
AD<0 & MD	0	
ACT_P <5 kBq	565	27.6%

UNEXPLAIN	PAUSE
TIME	TIME
10:12:34	07:05
16:13:14	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 15,130
 2-SEC RECORDS WITH SORTS 2,047 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	502	79.8%
3 DETECTORS	105	16.7%
4 DETECTORS	16	2.5%
5 DETECTORS	6	1.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	629	
NET 2-SEC RECORDS WITH SORTS	1,418	
2-SEC PERIODS WITH NO SORTS	13,712	
AVG TIME BETWEEN 2-SEC SORTS	21.3 sec	

1-GATE SORTS	1031	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P	
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)	
1	19	1.8%	-14000	1	-261	4000	275	13.4%	4
2	101	9.8%	-12000	2	-224	8000	861	42.1%	8
3	151	14.6%	-10000	2	-187	12000	306	14.9%	12
4	162	15.7%	-8000	3	-149	16000	182	8.9%	16
5	186	18.0%	-6000	2	-112	20000	93	4.5%	20
6	194	18.8%	-4000	26	-75	24000	59	2.9%	24
7	166	16.1%	-2000	96	-37	28000	47	2.3%	28
8	52	5.0%	0	191	0	32000	31	1.5%	32
TOTAL	1031		2000	325	37	36000	23	1.1%	36
			4000	320	75	40000	20	1.0%	40
2-GATE SORTS	1016	6000	251	112	44000	23	1.1%	44	
DETECTR	SORTS	FREQ%	8000	146	149	48000	16	0.8%	48
8			10000	97	187	52000	13	0.6%	52
9	54	5.3%	12000	38	224	56000	13	0.6%	56
10	128	12.6%	14000	18	261	60000	5	0.2%	60
11	163	16.0%	16000	3	299	64000	8	0.4%	64
12	185	18.2%	18000	1	336	68000	10	0.5%	68
13	202	19.9%	20000	0	373	72000	5	0.2%	72
14	179	17.6%	22000	0	410	76000	2	0.1%	76
15	105	10.3%	24000	0	448	80000	6	0.3%	80
TOTAL	1016		26000	0	485	84000	3	0.1%	84
			>28000	0	0	>84000	46	2.2%	>84
			TOTAL	1522		TOTAL	2047		

SUMMARY TOTALS

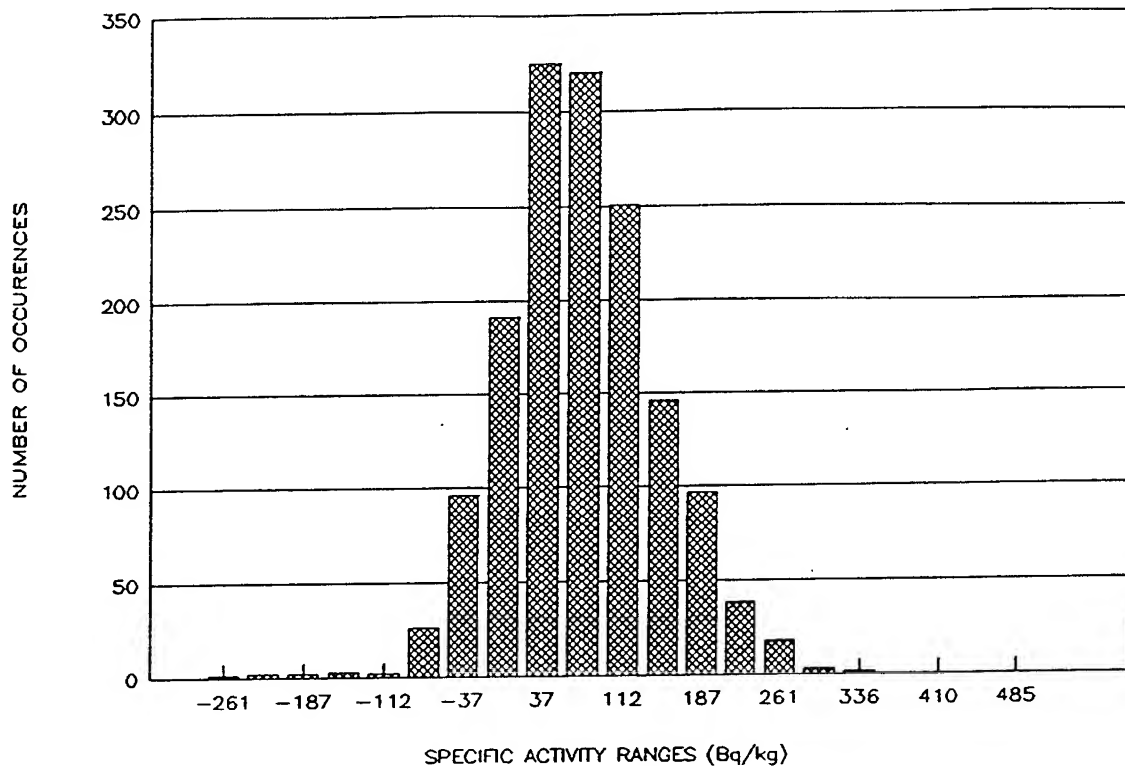
HOT PARTICLE EVENTS	1948	SORTS BY ONE GATE ONLY	1031
MULTIPARTICLE EVENTS	905	SORTS BY TWO GATES	1016
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

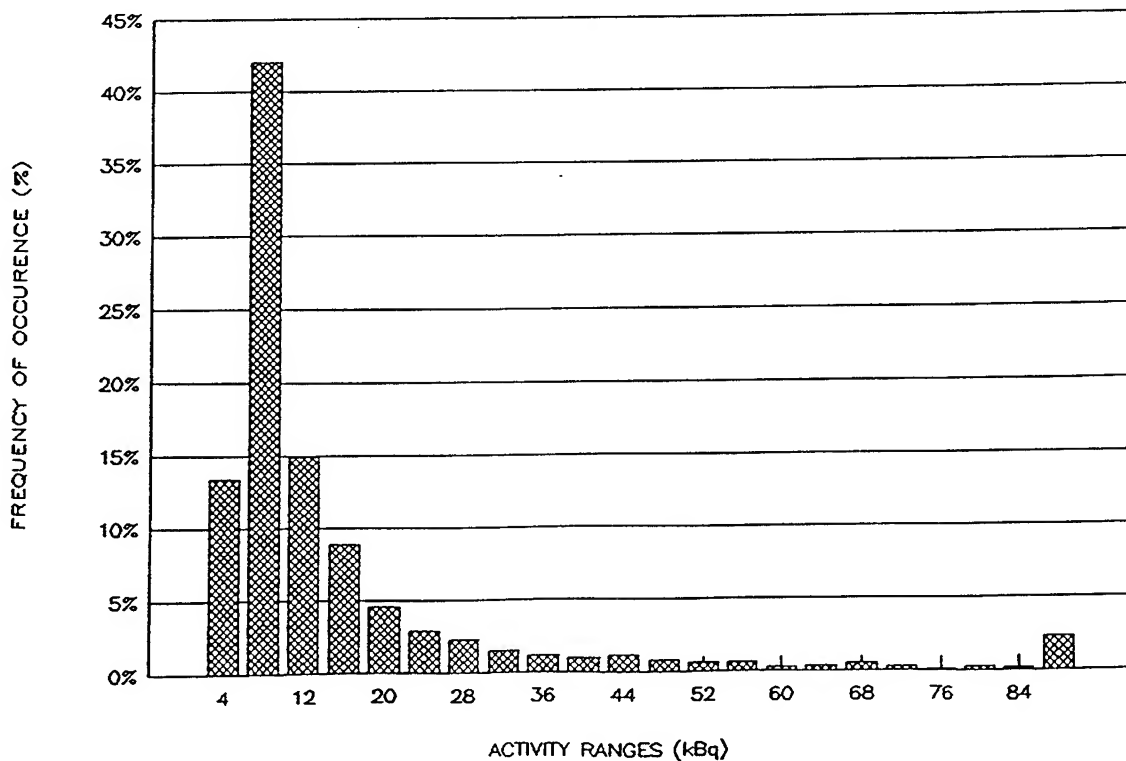
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 10-Feb-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 10-Feb-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 10-Feb-93

AVERAGE BACKGROUND COUNT RATE 0.79 ± 0.03 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	2.95 tons	78.1 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	38.2 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		96.4%
EQUIVALENT SOIL-IN-GROUND	2.34 yd ³	61.9 yd ³ 64.3 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	43,900 kBq
MAXIMUM/SORT	2,463 kBq
MINIMUM/SORT	2.7 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	19,474 kBq	8,996 kBq
MAXIMUM/SORT	1288 kBq	18 kBq
MINIMUM/SORT	0 Bq	-10 kBq
SPECIFIC ACTIVITY	6,591 Bq/kg	115 Bq/kg

WORK HISTORY

WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	08:35 AM	END SOIL PROCESSING	04:59 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	10.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	8.41 hr
DOWN-TIME	1.59 hr
TOTAL SYSTEM PAUSE	1.50 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	1.59 hr
SHUT-DOWN	0.50 hr
PLANT PERFORMANCE	84.1%
PRODUCTIVITY	84.1%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 3,752

NONPROCESS RECORDS (Test, calibration, etc) 9

20-SEC PROCESS RECORDS

TOTAL SORT	11 MD>0 & MND=0		
NO SORT	540 AD=0 & MD=0 & MND>0		
SOME SORT	962 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	0	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	None	07:05
ACT_P <5 kBq	516 23.0%		

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 15,130
 2-SEC RECORDS WITH SORTS 2,239 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 533 76.8%
 3 DETECTORS 122 17.6%
 4 DETECTORS 30 4.3%
 5 DETECTORS 9 1.3%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 694
 NET 2-SEC RECORDS WITH SORTS 1,545
 2-SEC PERIODS WITH NO SORTS 13,585
 AVG TIME BETWEEN 2-SEC SORTS 19.6 sec

1-GATE SORTS		1153	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	58	5.0%	-14000	0	-261	4000	226	10.1%	4
2	171	14.8%	-12000	1	-224	8000	924	41.3%	8
3	206	17.9%	-10000	3	-187	12000	387	17.3%	12
4	213	18.5%	-8000	2	-149	16000	198	8.8%	16
5	196	17.0%	-6000	2	-112	20000	118	5.3%	20
6	176	15.3%	-4000	6	-75	24000	71	3.2%	24
7	115	10.0%	-2000	17	-37	28000	45	2.0%	28
8	18	1.6%	0	70	0	32000	32	1.4%	32
TOTAL	1153		2000	147	37	36000	33	1.5%	36
			4000	273	75	40000	22	1.0%	40
			6000	274	112	44000	21	0.9%	44
			8000	286	149	48000	18	0.8%	48
			10000	197	187	52000	16	0.7%	52
9	105	9.7%	12000	126	224	56000	13	0.6%	56
10	146	13.4%	14000	74	261	60000	9	0.4%	60
11	209	19.2%	16000	32	299	64000	10	0.4%	64
12	207	19.1%	18000	12	336	68000	5	0.2%	68
13	183	16.9%	20000	0	373	72000	6	0.3%	72
14	151	13.9%	22000	0	410	76000	5	0.2%	76
15	85	7.8%	24000	0	448	80000	1	0.0%	80
TOTAL	1086		26000	0	485	84000	8	0.4%	84
			>28000	0	0	>84000	71	3.2%	>84
			TOTAL	1522		TOTAL	2239		

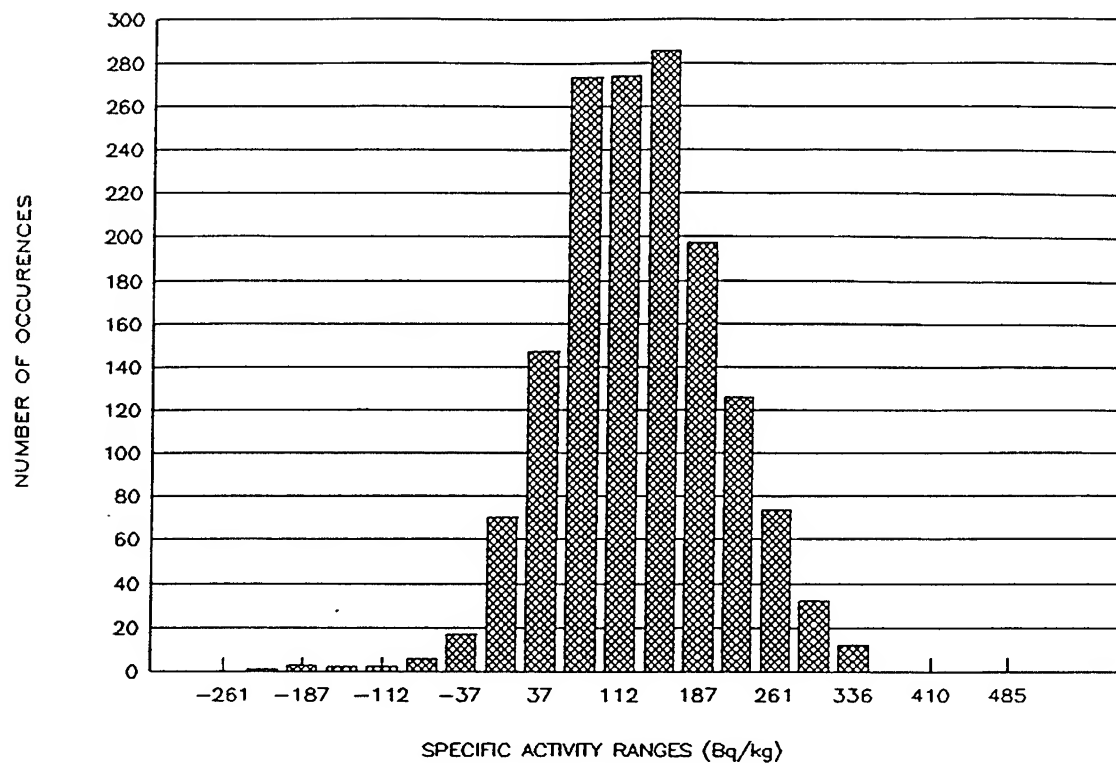
SUMMARY TOTALS
 HOT PARTICLE EVENTS 2125 SORTS BY ONE GATE ONLY 1153
 MULTIPARTICLE EVENTS 1523 SORTS BY TWO GATES 1086
 DISTRIBUTED EVENTS 764

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

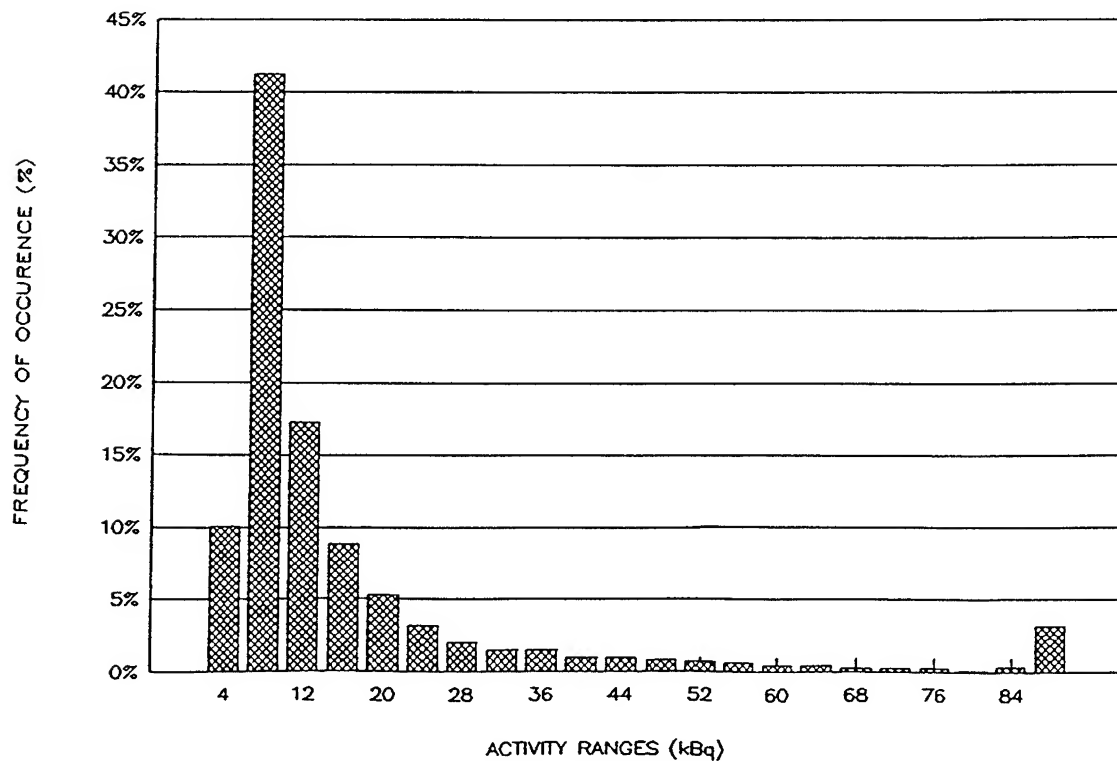
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 10-Feb-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 10-Feb-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 09-Feb-93

AVERAGE BACKGROUND COUNT RATE 0.53 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.00 tons	0.2 tons
MAXIMUM/SORT	0.7 kg	53.6 kg
MINIMUM/SORT	0.7 kg	52.9 kg

			99.3%
WEIGHT RECOVERY OR VOLUME RECOVERY			
EQUIVALENT SOIL-IN-GROUND	0.00 yd ³	0.2 yd ³	0.2 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	0 kBq
MAXIMUM/SORT	ERR kBq
MINIMUM/SORT	ERR kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

	4 kBq	18 kBq
MAXIMUM/SORT	3 kBq	11 kBq
MINIMUM/SORT	0 Bq	-2 kBq
SPECIFIC ACTIVITY	2,854 Bq/kg	85 Bq/kg

WORK HISTORY		WORK DAY END	
WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	09:07 AM	END SOIL PROCESSING	09:08 AM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	10.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	0.02 hr
DOWN-TIME	9.98 hr
TOTAL SYSTEM PAUSE	9.68 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	2.13 hr
SHUT-DOWN	8.36 hr
PLANT PERFORMANCE	0.2%
PRODUCTIVITY	0.2%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 4

NONPROCESS RECORDS (Test, calibration, etc) 4

20-SEC PROCESS RECORDS 4

TOTAL SORT	0 MD>0 & MND=0
NO SORT	2 AD=0 & MD=0 & MND>0
SOME SORT	2 AD>0&0<MD<MNDmax&MND<MNDmax

UNEXPLAINED RECORDS 0

0<AD<1kBq & MD>0 0

AD=0 & MD 0

AD<0 & MD 0

ACT_P <5 kBq 0 ERR

UNEXPLAIN	PAUSE
TIME	TIME
None	07:06
	09:08

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 40
 2-SEC RECORDS WITH SORTS 0 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 0 ERR
 3 DETECTORS 0 ERR
 4 DETECTORS 0 ERR
 5 DETECTORS 0 ERR
 6 DETECTORS 0 ERR
 7 DETECTORS 0 ERR
 8 DETECTORS 0 ERR
 TOTAL 0
 NET 2-SEC RECORDS WITH SORTS 0
 2-SEC PERIODS WITH NO SORTS 40
 AVG TIME BETWEEN 2-SEC SORTS ERR sec

1-GATE SORTS DETECTR	SORTS	0 FREQ%	ACT_NO (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT (#)	FREQ%	ACT_P (kBq)
1	0	ERR	-14000	0	-261	4000	0	ERR	4
2	0	ERR	-12000	0	-224	8000	0	ERR	8
3	0	ERR	-10000	0	-187	12000	0	ERR	12
4	0	ERR	-8000	0	-149	16000	0	ERR	16
5	0	ERR	-6000	0	-112	20000	0	ERR	20
6	0	ERR	-4000	0	-75	24000	0	ERR	24
7	0	ERR	-2000	0	-37	28000	0	ERR	28
8	0	ERR	0	3	0	32000	0	ERR	32
TOTAL	0		2000	1	37	36000	0	ERR	36
			4000	1	75	40000	0	ERR	40
2-GATE SORTS		0	6000	0	112	44000	0	ERR	44
DETECTR	SORTS	FREQ%	8000	1	149	48000	0	ERR	48
8			10000	1	187	52000	0	ERR	52
9	0	ERR	12000	1	224	56000	0	ERR	56
10	0	ERR	14000	0	261	60000	0	ERR	60
11	0	ERR	16000	0	299	64000	0	ERR	64
12	0	ERR	18000	0	336	68000	0	ERR	68
13	0	ERR	20000	0	373	72000	0	ERR	72
14	0	ERR	22000	0	410	76000	0	ERR	76
15	0	ERR	24000	0	448	80000	0	ERR	80
TOTAL	0		26000	0	485	84000	0	ERR	84
			>28000	0	0	>84000	0	ERR	>84
			TOTAL	8		TOTAL	0		

SUMMARY TOTALS

HOT PARTICLE EVENTS	0	SORTS BY ONE GATE ONLY	0
MULTIPARTICLE EVENTS	2	SORTS BY TWO GATES	0
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 09-Feb-93

AVERAGE BACKGROUND COUNT RATE	0.60 ±	ERR c/sec		
SORTER SOIL DENSITY	1.15	tons/m ³		
GROUND SOIL DENSITY	1.65	tons/m ³		
			CONTAMINATED	CLEAN
MASS TOTAL			0.06 tons	0.2 tons
MAXIMUM/SORT			53.6 kg	53.6 kg
MINIMUM/SORT			2.7 kg	50.9 kg
WEIGHT RECOVERY OR VOLUME RECOVERY				79.0%
EQUIVALENT SOIL-IN-GROUND			0.04 yd ³	0.2 yd ³ 0.2 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)				
TOTAL			51 kBq	
MAXIMUM/SORT			31 kBq	
MINIMUM/SORT			7.9 kBq	
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY				
MAXIMUM/SORT			42 kBq	9 kBq
MINIMUM/SORT			21 kBq	10 kBq
SPECIFIC ACTIVITY			0 Bq	-2 kBq
			738 Bq/kg	45 Bq/kg
WORK HISTORY				
WORK DAY START	07:00 AM		WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM		PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	09:07 AM		END SOIL PROCESSING	09:08 AM
LUNCH START	11:30 AM		LUNCH PERIOD	0.5 hr
WORK HOURS			10.0 hr	
AVAILABLE HOURS			10.0 hr	
ACTUAL PROCESS HOURS (total 20-sec records)			0.03 hr	
DOWN-TIME			9.97 hr	
TOTAL SYSTEM PAUSE			2.02 hr	
NONAVAILABLE HOURS			0.0 hr	
START-UP			2.13 hr	
SHUT-DOWN			8.35 hr	
PLANT PERFORMANCE			0.3%	
PRODUCTIVITY			0.3%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)			8	
NONPROCESS RECORDS (Test, calibration, etc)			2	
20-SEC PROCESS RECORDS			5	
TOTAL SORT			1 MD>0 & MND=0	
NO SORT			3 AD=0 & MD=0 & MND>0	
SOME SORT			1 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS			0	
0<AD<1kBq & MD>0	0			UNEXPLAIN PAUSE
AD=0 & MD	0			TIME TIME
AD<0 & MD	0			None 07:06
ACT_P <5 kBq	0	0.0%		

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 50
 2-SEC RECORDS WITH SORTS 3 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 1 *****
 3 DETECTORS 0 0.0%
 4 DETECTORS 0 0.0%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 1
 NET 2-SEC RECORDS WITH SORTS 2
 2-SEC PERIODS WITH NO SORTS 48
 AVG TIME BETWEEN 2-SEC SORTS 50.0 sec

1-GATE SORTS		1	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%		ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	0	0.0%	-14000	0	-261	4000	0	0.0%	4
2	0	0.0%	-12000	0	-224	8000	1	33.3%	8
3	0	0.0%	-10000	0	-187	12000	0	0.0%	12
4	1	100.0%	-8000	0	-149	16000	1	33.3%	16
5	0	0.0%	-6000	0	-112	20000	0	0.0%	20
6	0	0.0%	-4000	0	-75	24000	0	0.0%	24
7	0	0.0%	-2000	1	-37	28000	0	0.0%	28
8	0	0.0%	0	3	0	32000	1	33.3%	32
TOTAL	1		2000	0	37	36000	0	0.0%	36
			4000	1	75	40000	0	0.0%	40
2-GATE SORTS		2	6000	0	112	44000	0	0.0%	44
DETECTR	SORTS	FREQ%	8000	0	149	48000	0	0.0%	48
8			10000	1	187	52000	0	0.0%	52
9	0	0.0%	12000	1	224	56000	0	0.0%	56
10	0	0.0%	14000	0	261	60000	0	0.0%	60
11	1	50.0%	16000	0	299	64000	0	0.0%	64
12	1	50.0%	18000	0	336	68000	0	0.0%	68
13	0	0.0%	20000	0	373	72000	0	0.0%	72
14	0	0.0%	22000	0	410	76000	0	0.0%	76
15	0	0.0%	24000	0	448	80000	0	0.0%	80
TOTAL	2		26000	0	485	84000	0	0.0%	84
			>28000	0	0	>84000	0	0.0%	>84
			TOTAL	7		TOTAL	3		

SUMMARY TOTALS

HOT PARTICLE EVENTS	4	SORTS BY ONE GATE ONLY	1
MULTIPARTICLE EVENTS	0	SORTS BY TWO GATES	2
DISTRIBUTED EVENTS	80		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 08-Feb-93

AVERAGE BACKGROUND COUNT RATE 0.73 \pm 0.05 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	1.02 tons	86.8 tons
MAXIMUM/SORT	8.7 kg	53.6 kg
MINIMUM/SORT	0.7 kg	44.9 kg

		98.8%
WEIGHT RECOVERY OR VOLUME RECOVERY		
EQUIVALENT SOIL-IN-GROUND	0.81 yd ³	68.8 yd ³ 69.6 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	21,688 kBq
MAXIMUM/SORT	2,827 kBq
MINIMUM/SORT	1.9 kBq

	8,670 kBq	2,901 kBq
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY		
MAXIMUM/SORT	1784 kBq	15 kBq
MINIMUM/SORT	0 Bq	-12 kBq
SPECIFIC ACTIVITY	8,504 Bq/kg	33 Bq/kg

WORK HISTORY

WORK DAY START 07:00 AM
 PLANT START-UP 07:00 AM
 START SOIL PROCESSING 07:39 AM
 LUNCH START 11:30 AM

WORK DAY END 05:30 PM
 PLANT SHUT-DOWN 05:30 PM
 END SOIL PROCESSING 04:44 PM
 LUNCH PERIOD 0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	10.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	9.10 hr
DOWN-TIME	0.90 hr
TOTAL SYSTEM PAUSE	0.61 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.65 hr
SHUT-DOWN	0.75 hr
PLANT PERFORMANCE	91.0%
PRODUCTIVITY	91.0%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 2,606

NONPROCESS RECORDS (Test, calibration, etc) 6

20-SEC PROCESS RECORDS

TOTAL SORT	1,638	0 MD>0 & MND=0
NO SORT	970	AD=0 & MD=0 & MND>0
SOME SORT	668	AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0	
0<AD<1kBq & MD>0	0	UNEXPLAIN
AD=0 & MD	0	TIME
AD<0 & MD	0	None
ACT_P <5 kBq	283	29.2%

PAUSE
 TIME
 07:02

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 16,380
 2-SEC RECORDS WITH SORTS 968 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 210 81.7%
 3 DETECTORS 39 15.2%
 4 DETECTORS 5 1.9%
 5 DETECTORS 3 1.2%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 257
 NET 2-SEC RECORDS WITH SORTS 711
 2-SEC PERIODS WITH NO SORTS 15,669
 AVG TIME BETWEEN 2-SEC SORTS 46.1 sec

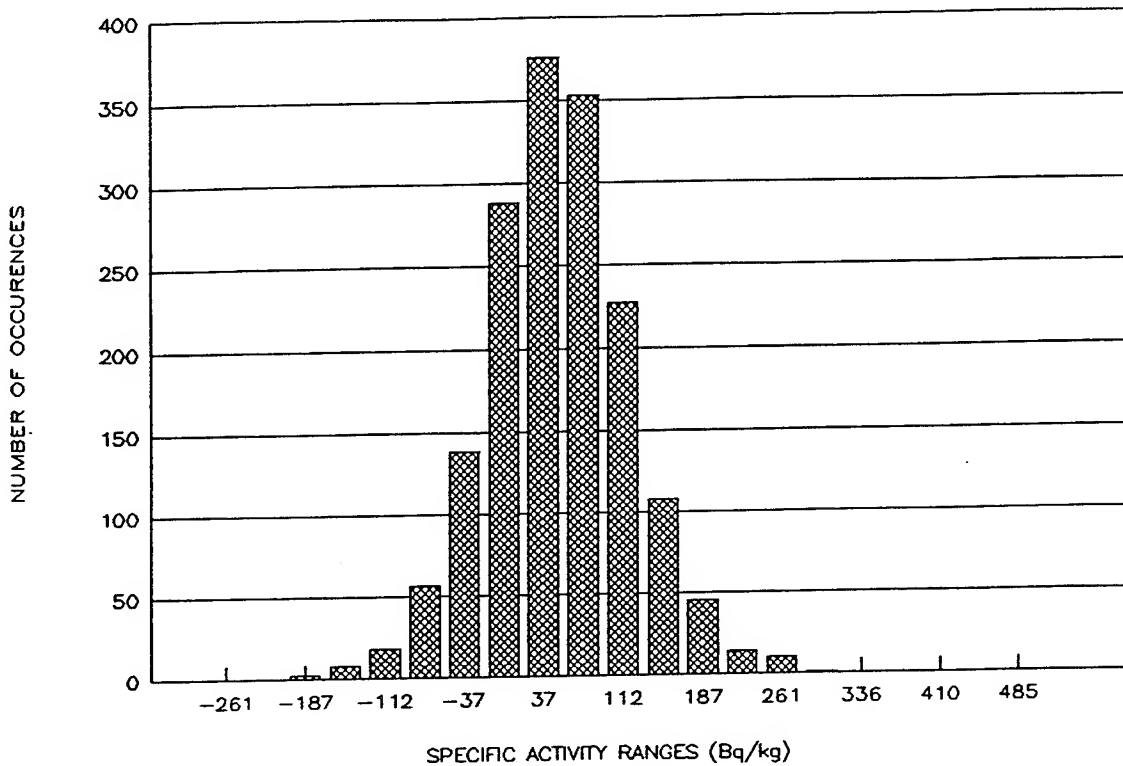
1-GATE SORTS	480	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	10	2.1%	-14000	0	-261	4000	130	13.4%
2	38	7.9%	-12000	0	-224	8000	403	41.6%
3	77	16.0%	-10000	2	-187	12000	155	16.0%
4	74	15.4%	-8000	8	-149	16000	67	6.9%
5	83	17.3%	-6000	18	-112	20000	42	4.3%
6	88	18.3%	-4000	56	-75	24000	25	2.6%
7	77	16.0%	-2000	138	-37	28000	19	2.0%
8	33	6.9%	0	288	0	32000	15	1.5%
TOTAL	480		2000	376	37	36000	15	1.5%
			4000	353	75	40000	14	1.4%
2-GATE SORTS	488		6000	227	112	44000	9	0.9%
DETECTR	SORTS	FREQ%	8000	108	149	48000	7	0.7%
8			10000	45	187	52000	7	0.7%
9	25	5.1%	12000	14	224	56000	8	0.8%
10	63	12.9%	14000	10	261	60000	7	0.7%
11	91	18.6%	16000	1	299	64000	7	0.7%
12	82	16.8%	18000	0	336	68000	0	0.0%
13	95	19.5%	20000	0	373	72000	5	0.5%
14	81	16.6%	22000	0	410	76000	3	0.3%
15	51	10.5%	24000	0	448	80000	2	0.2%
TOTAL	488		26000	0	485	84000	0	0.0%
			>28000	0	0	>84000	28	2.9%
			TOTAL	1644		TOTAL	968	
SUMMARY TOTALS								
HOT PARTICLE EVENTS		979				SORTS BY ONE GATE ONLY	480	
MULTIPARTICLE EVENTS		545				SORTS BY TWO GATES	488	
DISTRIBUTED EVENTS		0						

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

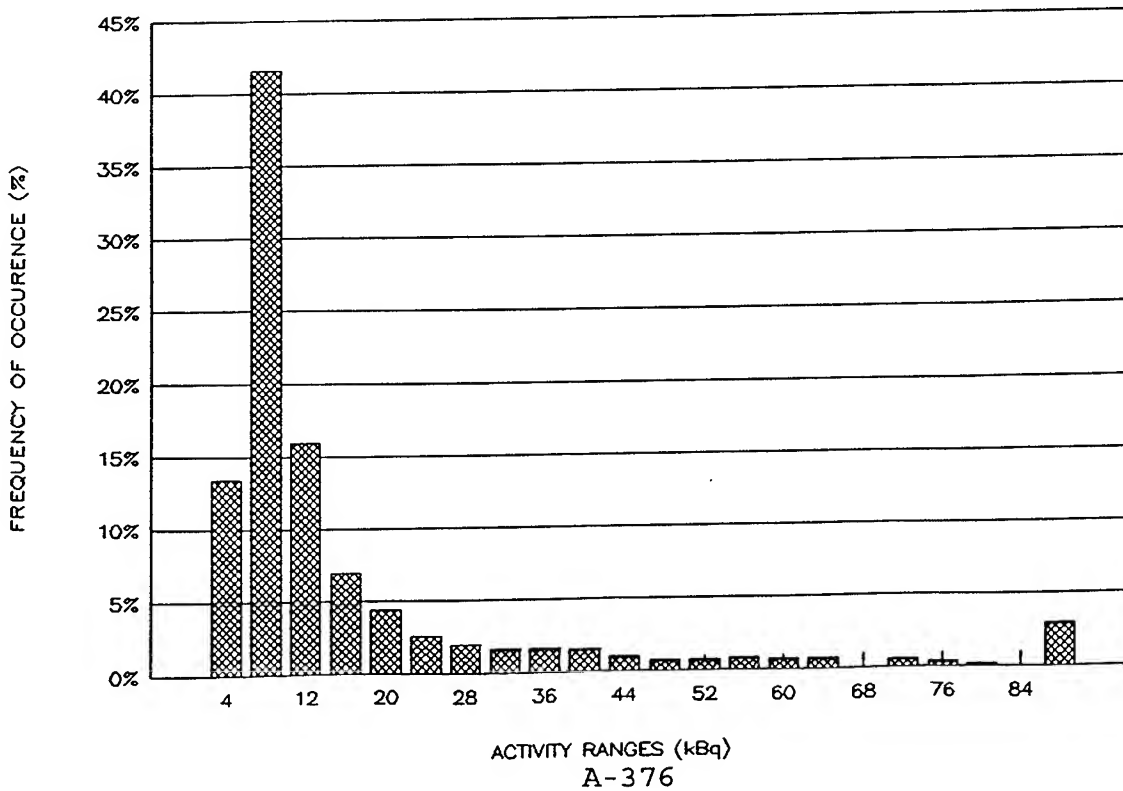
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 08-Feb-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 08-Feb-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 08-Feb-93

AVERAGE BACKGROUND COUNT RATE 0.80 ± 0.02 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	1.45 tons	86.0 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	47.5 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		98.3%
EQUIVALENT SOIL-IN-GROUND	1.15 yd ³	68.2 yd ³ 69.3 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	18,619 kBq
MAXIMUM/SORT	504 kBq
MINIMUM/SORT	2.6 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	8,864 kBq	6,310 kBq
MAXIMUM/SORT	420 kBq	18 kBq
MINIMUM/SORT	0 Bq	-9 kBq
SPECIFIC ACTIVITY	6,108 Bq/kg	73 Bq/kg

WORK HISTORY

WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	07:39 AM	END SOIL PROCESSING	04:42 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	10.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	9.07 hr
DOWN-TIME	0.93 hr
TOTAL SYSTEM PAUSE	0.61 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.65 hr
SHUT-DOWN	0.79 hr
PLANT PERFORMANCE	90.7%
PRODUCTIVITY	90.7%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,605
NONPROCESS RECORDS (Test, calibration, etc)	12

20-SEC PROCESS RECORDS	1,632		
TOTAL SORT	3 MD>0 & MND=0		
NO SORT	771 AD=0 & MD=0 & MND>0		
SOME SORT	857 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	1		
0<AD<1kBq & MD>0	1	UNEXPLAIN	PAUSE
AD=0 & MD	1	TIME	TIME
AD<0 & MD	0	08:25:48	07:02
ACT_P <5 kBq	222	22.8%	12:29:08

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 16,320
 2-SEC RECORDS WITH SORTS 973 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 222 84.4%
 3 DETECTORS 38 14.4%
 4 DETECTORS 2 0.8%
 5 DETECTORS 1 0.4%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 263
 NET 2-SEC RECORDS WITH SORTS 710
 2-SEC PERIODS WITH NO SORTS 15,610
 AVG TIME BETWEEN 2-SEC SORTS 46.0 sec

1-GATE SORTS		494	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT FREQ%		ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	20	4.0%	-14000	0	-261	4000	99	10.2%	4
2	93	18.8%	-12000	0	-224	8000	406	41.7%	8
3	80	16.2%	-10000	2	-187	12000	164	16.9%	12
4	85	17.2%	-8000	7	-149	16000	89	9.1%	16
5	81	16.4%	-6000	8	-112	20000	42	4.3%	20
6	75	15.2%	-4000	17	-75	24000	23	2.4%	24
7	49	9.9%	-2000	59	-37	28000	27	2.8%	28
8	11	2.2%	0	145	0	32000	14	1.4%	32
TOTAL	494		2000	294	37	36000	7	0.7%	36
			4000	329	75	40000	11	1.1%	40
			6000	353	112	44000	5	0.5%	44
2-GATE SORTS		479	8000	228	149	48000	7	0.7%	48
DETECTR	SORTS	FREQ%	10000	109	187	52000	8	0.8%	52
8			12000	52	224	56000	9	0.9%	56
9	43	9.0%	14000	29	261	60000	5	0.5%	60
10	85	17.7%	16000	9	299	64000	3	0.3%	64
11	82	17.1%	18000	3	336	68000	4	0.4%	68
12	90	18.8%	20000	0	373	72000	5	0.5%	72
13	86	18.0%	22000	0	410	76000	1	0.1%	76
14	60	12.5%	24000	0	448	80000	2	0.2%	80
15	33	6.9%	26000	0	485	84000	4	0.4%	84
TOTAL	479		>28000	0	0	>84000	38	3.9%	>84
			TOTAL	1644		TOTAL	973		

SUMMARY TOTALS

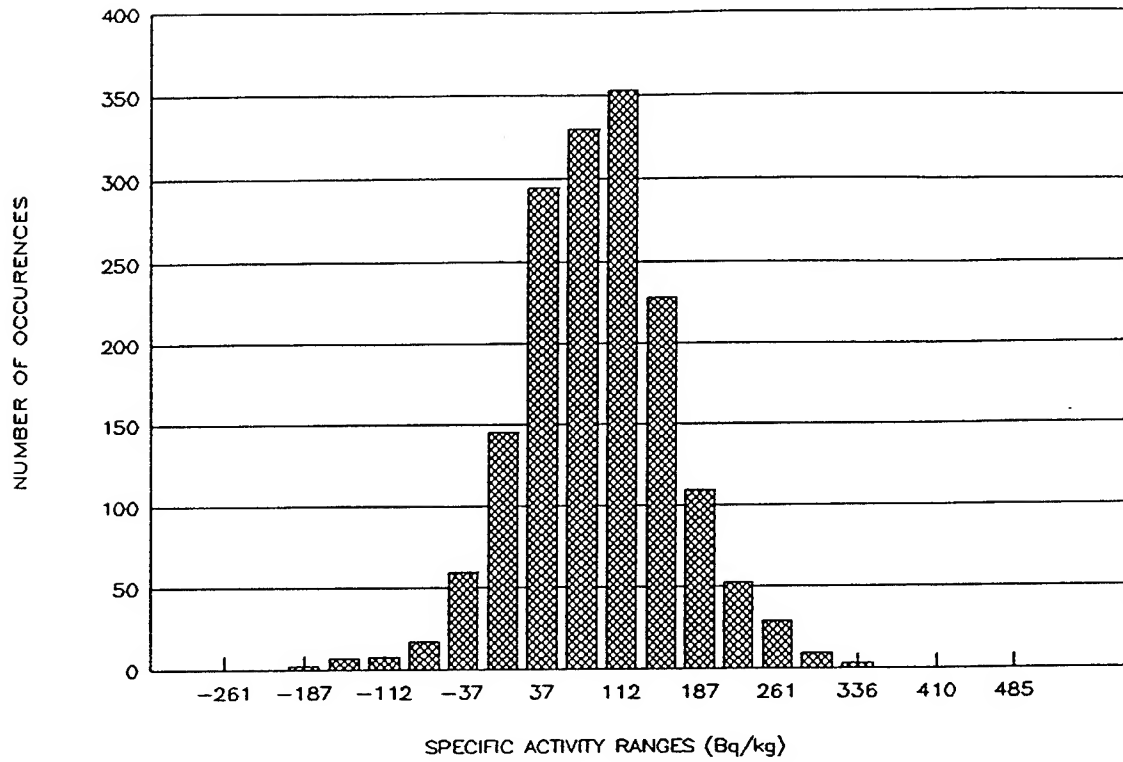
HOT PARTICLE EVENTS	966	SORTS BY ONE GATE ONLY	494
MULTIPARTICLE EVENTS	970	SORTS BY TWO GATES	479
DISTRIBUTED EVENTS	227		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

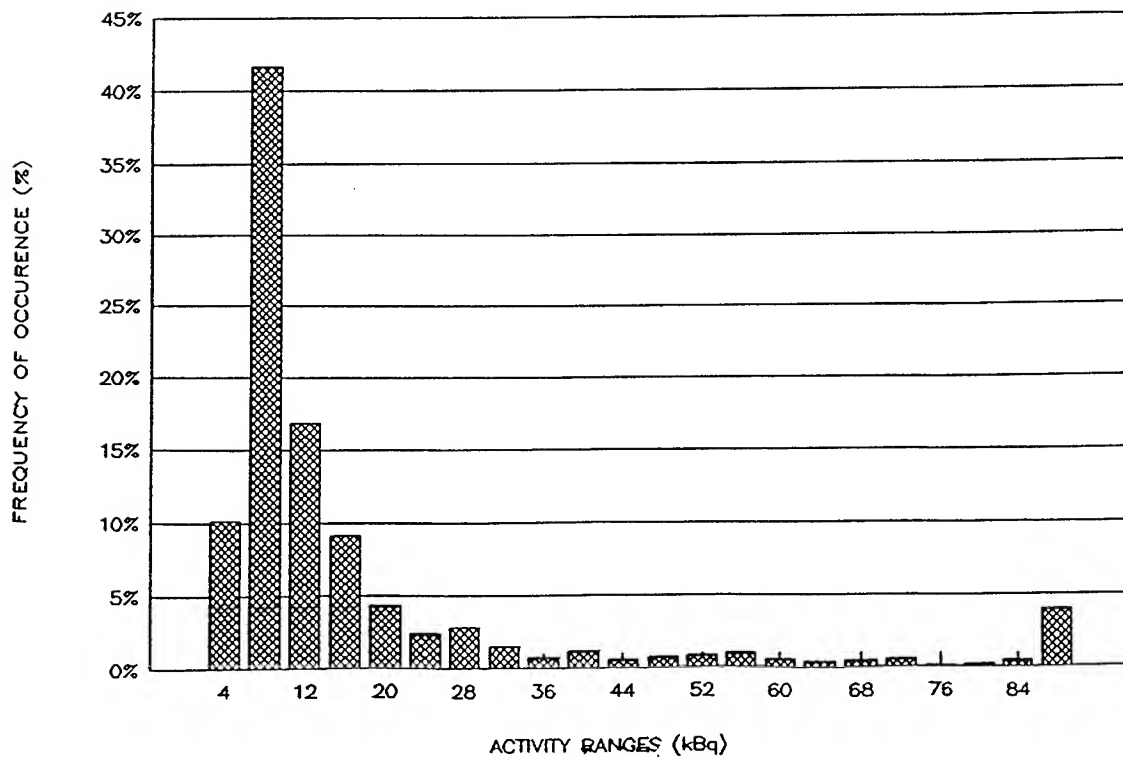
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 08-Feb-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 08-Feb-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 26-Jan-93

AVERAGE BACKGROUND COUNT RATE 0.72 \pm 0.04 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	1.04 tons	87.3 tons
MAXIMUM/SORT	8 kg	53.6 kg
MINIMUM/SORT	0.7 kg	45.5 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		98.8%
EQUIVALENT SOIL-IN-GROUND	0.83 yd ³	69.2 yd ³ 70.0 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	16,003 kBq
MAXIMUM/SORT	443 kBq
MINIMUM/SORT	2.2 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	6,931 kBq	3,588 kBq
MAXIMUM/SORT	339 kBq	14 kBq
MINIMUM/SORT	0 Bq	-12 kBq
SPECIFIC ACTIVITY	6,647 Bq/kg	41 Bq/kg

WORK HISTORY

WORK DAY START 07:00 AM
 PLANT START-UP 07:00 AM
 START SOIL PROCESSING 07:59 AM
 LUNCH START ~~12:00 AM~~ N/A

WORK DAY END 05:30 PM
 PLANT SHUT-DOWN 05:30 PM
 END SOIL PROCESSING 05:08 PM
 LUNCH PERIOD 0.0 hr

WORK HOURS	10.5 hr
AVAILABLE HOURS	10.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	9.16 hr
DOWN-TIME	1.34 hr
TOTAL SYSTEM PAUSE	0.55 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.99 hr
SHUT-DOWN	0.35 hr
PLANT PERFORMANCE	87.2%
PRODUCTIVITY	87.2%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 2,682
 NONPROCESS RECORDS (Test, calibration, etc) 3

20-SEC PROCESS RECORDS

TOTAL SORT	1,649	0 MD>0 & MND=0
NO SORT	949	AD=0 & MD=0 & MND>0
SOME SORT	700	AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0	
0<AD<1kBq & MD>0	2	UNEXPLAIN
AD=0 & MD	0	TIME
AD<0 & MD	0	10:23:39
ACT_P <5 kBq	326	15:47:39
	31.6%	

PAUSE
 TIME
 07:26

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 16,490
 2-SEC RECORDS WITH SORTS 1,033 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 230 83.0%
 3 DETECTORS 39 14.1%
 4 DETECTORS 8 2.9%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 277
 NET 2-SEC RECORDS WITH SORTS 756
 2-SEC PERIODS WITH NO SORTS 15,734
 AVG TIME BETWEEN 2-SEC SORTS 43.6 sec

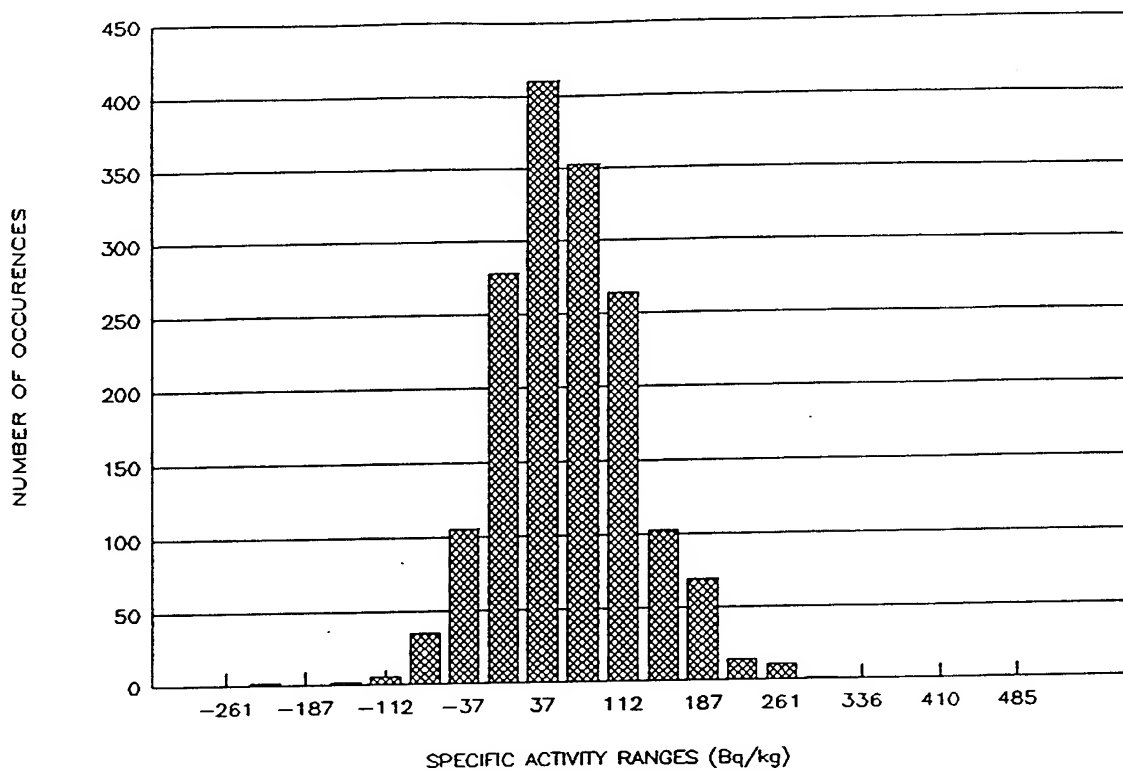
1-GATE SORTS	527	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	12	2.3%	-14000	0	-261	4000	150	14.5%
2	57	10.8%	-12000	2	-224	8000	434	42.0%
3	87	16.5%	-10000	0	-187	12000	162	15.7%
4	93	17.6%	-8000	2	-149	16000	81	7.8%
5	101	19.2%	-6000	5	-112	20000	44	4.3%
6	90	17.1%	-4000	35	-75	24000	24	2.3%
7	66	12.5%	-2000	105	-37	28000	10	1.0%
8	21	4.0%	0	278	0	32000	17	1.6%
TOTAL	527		2000	411	37	36000	15	1.5%
			4000	353	75	40000	8	0.8%
2-GATE SORTS	506		6000	264	112	44000	14	1.4%
DETECTR	SORTS	FREQ%	8000	103	149	48000	11	1.1%
8			10000	69	187	52000	6	0.6%
9	28	5.5%	12000	14	224	56000	9	0.9%
10	74	14.6%	14000	10	261	60000	2	0.2%
11	97	19.2%	16000	1	299	64000	5	0.5%
12	84	16.6%	18000	0	336	68000	3	0.3%
13	93	18.4%	20000	0	373	72000	9	0.9%
14	78	15.4%	22000	0	410	76000	1	0.1%
15	52	10.3%	24000	0	448	80000	0	0.0%
TOTAL	506		26000	0	485	84000	2	0.2%
			>28000	0	0	>84000	26	2.5%
			TOTAL	1652		TOTAL	1033	
SUMMARY TOTALS								
	HOT PARTICLE EVENTS	1007				SORTS BY ONE GATE ONLY	527	
	MULTIPARTICLE EVENTS	551				SORTS BY TWO GATES	506	
	DISTRIBUTED EVENTS	0						

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

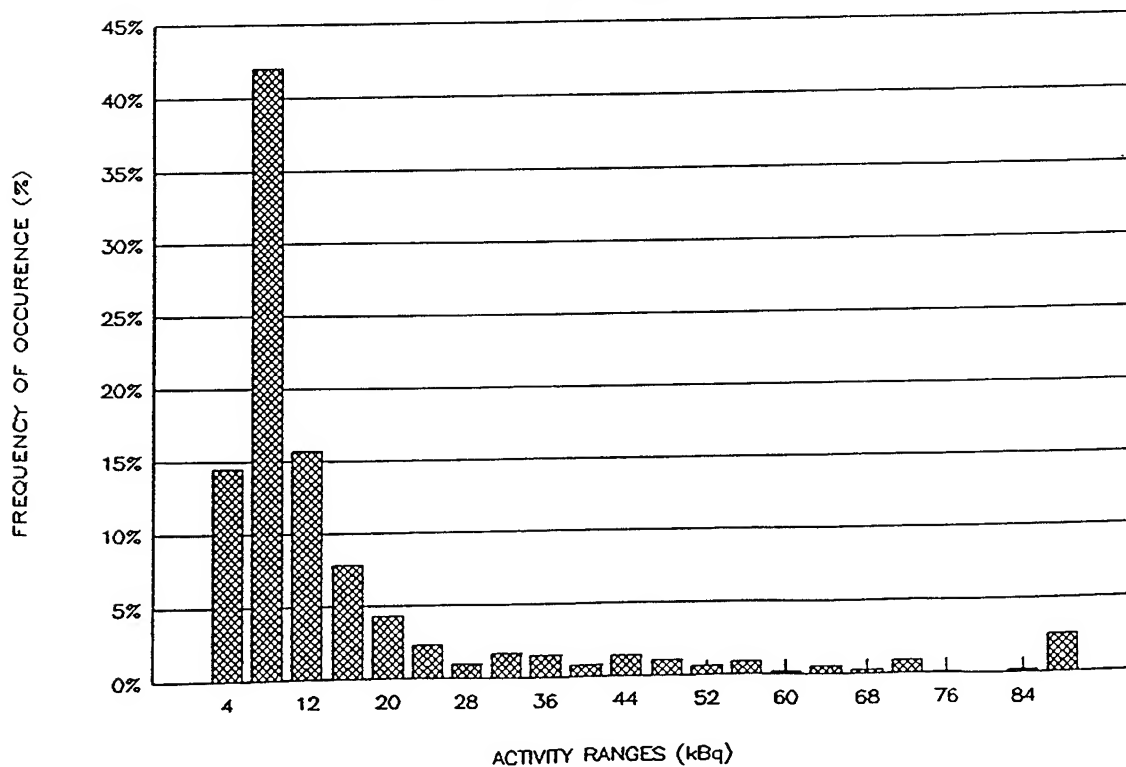
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 26-Jan-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 26-Jan-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 26-Jan-93

AVERAGE BACKGROUND COUNT RATE	0.79	±	0.02 c/sec		
SORTER SOIL DENSITY	1.15	tons/m ³			
GROUND SOIL DENSITY	1.65	tons/m ³			
MASS TOTAL			CONTAMINATED		CLEAN
			1.25 tons		87.1 tons
MAXIMUM/SORT			6 kg		53.6 kg
MINIMUM/SORT			0.7 kg		47.5 kg
WEIGHT RECOVERY OR VOLUME RECOVERY					98.6%
EQUIVALENT SOIL-IN-GROUND			0.99 yd ³	69.1 yd ³	70.0 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)					
TOTAL			15,043 kBq		
MAXIMUM/SORT			294 kBq		
MINIMUM/SORT			2.2 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			7,240 kBq	6,377 kBq	
MAXIMUM/SORT			172 kBq	19 kBq	
MINIMUM/SORT			0 Bq	-17 kBq	
SPECIFIC ACTIVITY			5,795 Bq/kg	73 Bq/kg	
WORK HISTORY					
WORK DAY START	07:00 AM		WORK DAY END	05:30 PM	
PLANT START-UP	07:00 AM		PLANT SHUT-DOWN	05:30 PM	
START SOIL PROCESSING	07:59 AM		END SOIL PROCESSING	05:08 PM	
LUNCH START	11:30 AM N/A		LUNCH PERIOD	0.0 hr	
WORK HOURS				10.5 hr	
AVAILABLE HOURS				10.5 hr	
ACTUAL PROCESS HOURS (total 20-sec records)				9.16 hr	
DOWN-TIME				1.34 hr	
TOTAL SYSTEM PAUSE				0.55 hr	
NONAVAILABLE HOURS				0.0 hr	
START-UP				0.99 hr	
SHUT-DOWN				0.35 hr	
PLANT PERFORMANCE				87.2%	
PRODUCTIVITY				87.2%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)			2,653		
NONPROCESS RECORDS (Test, calibration, etc)			3		
20-SEC PROCESS RECORDS			1,649		
TOTAL SORT			0 MD>0 & MND=0		
NO SORT			784 AD=0 & MD=0 & MND>0		
SOME SORT			865 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS			0		
0<AD<1kBq & MD>0	6			UNEXPLAIN	PAUSE
AD=0 & MD	0			TIME	TIME
AD<0 & MD	0			08:56:59	07:26
ACT_P <5 kBq	254	25.3%		10:00:39	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	16,490	11:22:39
2-SEC RECORDS WITH SORTS	1,004 (ACT_P >0 kBq)	12:20:39
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		13:07:59
2 DETECTORS	218 83.8%	13:29:59
3 DETECTORS	36 13.8%	
4 DETECTORS	6 2.3%	
5 DETECTORS	0 0.0%	
6 DETECTORS	0 0.0%	
7 DETECTORS	0 0.0%	
8 DETECTORS	0 0.0%	
TOTAL	260	
NET 2-SEC RECORDS WITH SORTS	744	
2-SEC PERIODS WITH NO SORTS	15,746	
AVG TIME BETWEEN 2-SEC SORTS	44.3 sec	

1-GATE SORTS	512	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	30	5.9%	-14000	2	-261	4000	98	9.8%
2	103	20.1%	-12000	2	-224	8000	465	46.3%
3	105	20.5%	-10000	2	-187	12000	163	16.2%
4	104	20.3%	-8000	4	-149	16000	70	7.0%
5	77	15.0%	-6000	1	-112	20000	48	4.8%
6	54	10.5%	-4000	15	-75	24000	32	3.2%
7	33	6.4%	-2000	51	-37	28000	23	2.3%
8	6	1.2%	0	131	0	32000	10	1.0%
TOTAL	512		2000	286	37	36000	12	1.2%
			4000	391	75	40000	7	0.7%
2-GATE SORTS	492	6000	336	112	44000	11	1.1%	44
DETECTR	SORTS	FREQ%	8000	224	149	48000	5	0.5%
8			10000	126	187	52000	3	0.3%
9	71	14.4%	12000	51	224	56000	10	1.0%
10	96	19.5%	14000	17	261	60000	2	0.2%
11	113	23.0%	16000	9	299	64000	6	0.6%
12	92	18.7%	18000	2	336	68000	3	0.3%
13	59	12.0%	20000	2	373	72000	6	0.6%
14	47	9.6%	22000	0	410	76000	3	0.3%
15	14	2.8%	24000	0	448	80000	2	0.2%
TOTAL	492		26000	0	485	84000	0	0.0%
			>28000	0	0	>84000	25	2.5%
			TOTAL	1652		TOTAL	1004	

SUMMARY TOTALS

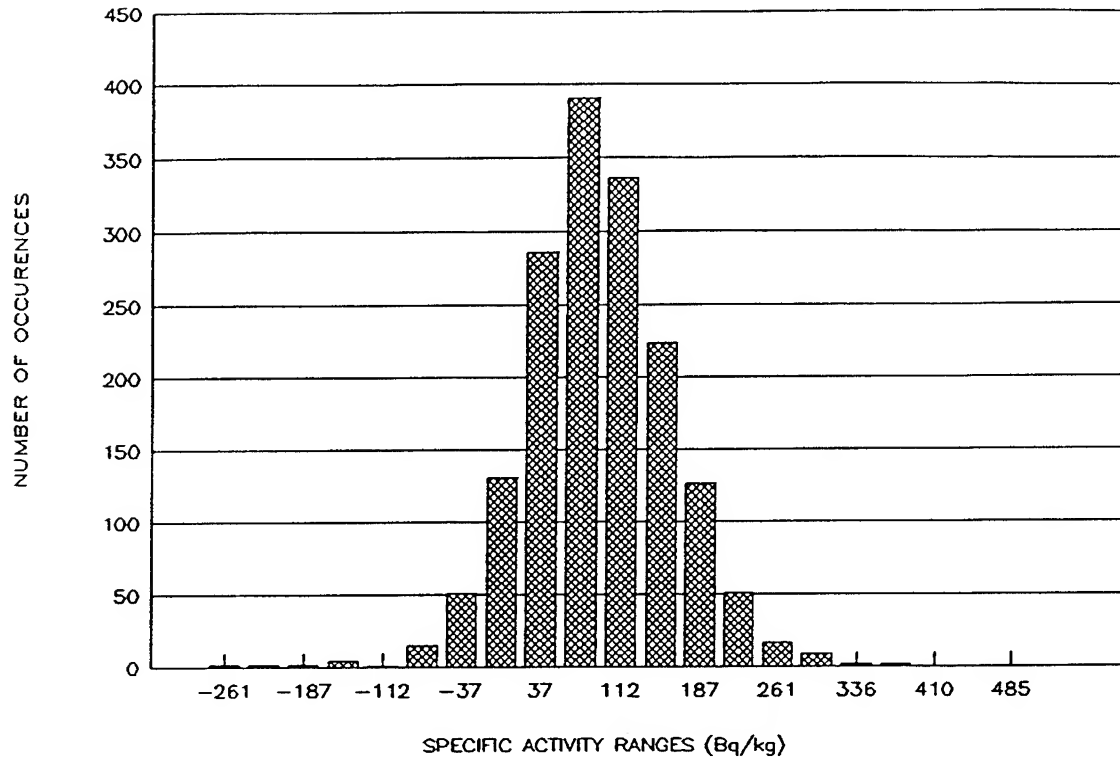
HOT PARTICLE EVENTS	1024	SORTS BY ONE GATE ONLY	512
MULTIPARTICLE EVENTS	840	SORTS BY TWO GATES	492
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

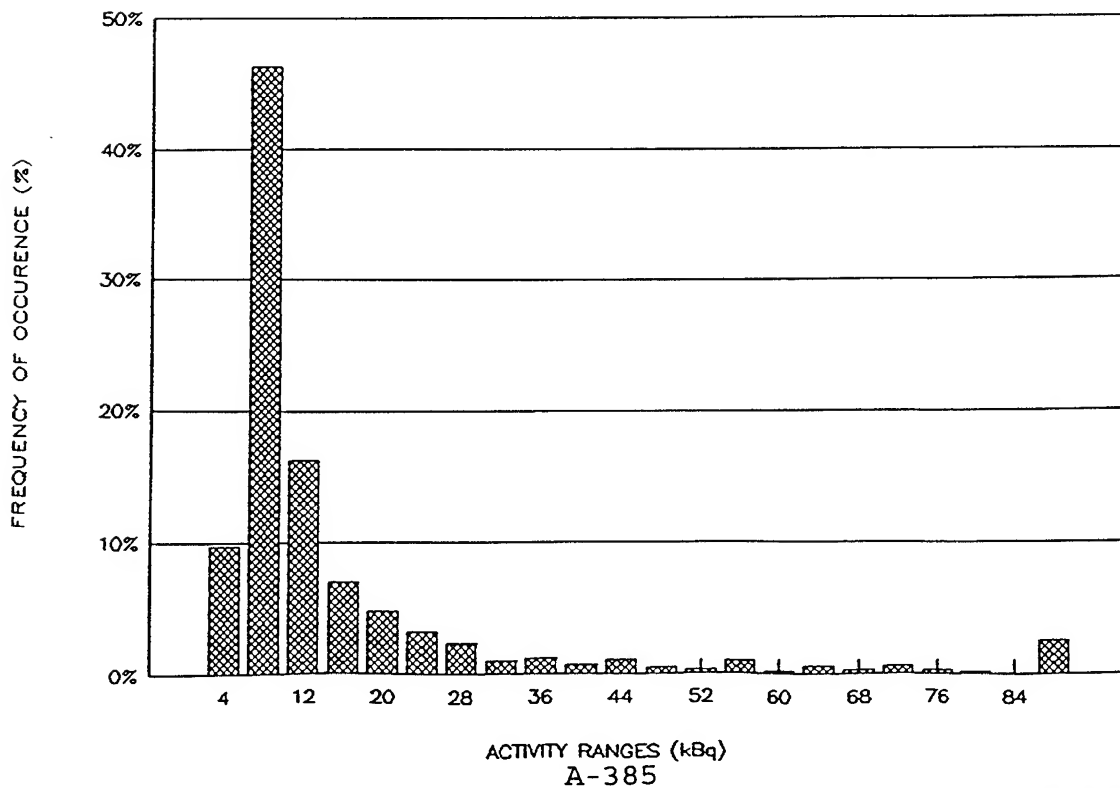
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 26-Jan-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 26-Jan-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 25-Jan-93

AVERAGE BACKGROUND COUNT RATE	0.74 ± 0.05 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	1.15 tons	77.9 tons	
MAXIMUM/SORT	53.6 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	43.5 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			98.5%
EQUIVALENT SOIL-IN-GROUND	0.92 yd ³	61.8 yd ³	62.7 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	21,418 kBq		
MAXIMUM/SORT	939 kBq		
MINIMUM/SORT	2.2 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	8,919 kBq	3,449 kBq	
MAXIMUM/SORT	674 kBq	18 kBq	
MINIMUM/SORT	0 Bq	-9 kBq	
SPECIFIC ACTIVITY	7,725 Bq/kg	44 Bq/kg	
WORK HISTORY			
WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	07:41 AM	END SOIL PROCESSING	05:06 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr
WORK HOURS	10.0 hr		
AVAILABLE HOURS	10.0 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	8.20 hr		
DOWN-TIME	1.80 hr		
TOTAL SYSTEM PAUSE	1.89 hr		
NONAVAILABLE HOURS	0.0 hr		
START-UP	0.69 hr		
SHUT-DOWN	0.39 hr		
PLANT PERFORMANCE	82.0%		
PRODUCTIVITY	82.0%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,641		
NONPROCESS RECORDS (Test, calibration, etc)	6		
20-SEC PROCESS RECORDS	1,476		
TOTAL SORT	1 MD>0 & MND=0		
NO SORT	807 AD=0 & MD=0 & MND>0		
SOME SORT	668 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	3	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	13:14:58	07:00
ACT_P <5 kBq	326 28.0%	13:39:58	11:11

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 14,760 16:17:58
 2-SEC RECORDS WITH SORTS 1,165 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 287 80.8%
 3 DETECTORS 55 15.5%
 4 DETECTORS 9 2.5%
 5 DETECTORS 4 1.1%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 355
 NET 2-SEC RECORDS WITH SORTS 810
 2-SEC PERIODS WITH NO SORTS 13,950
 AVG TIME BETWEEN 2-SEC SORTS 36.4 sec

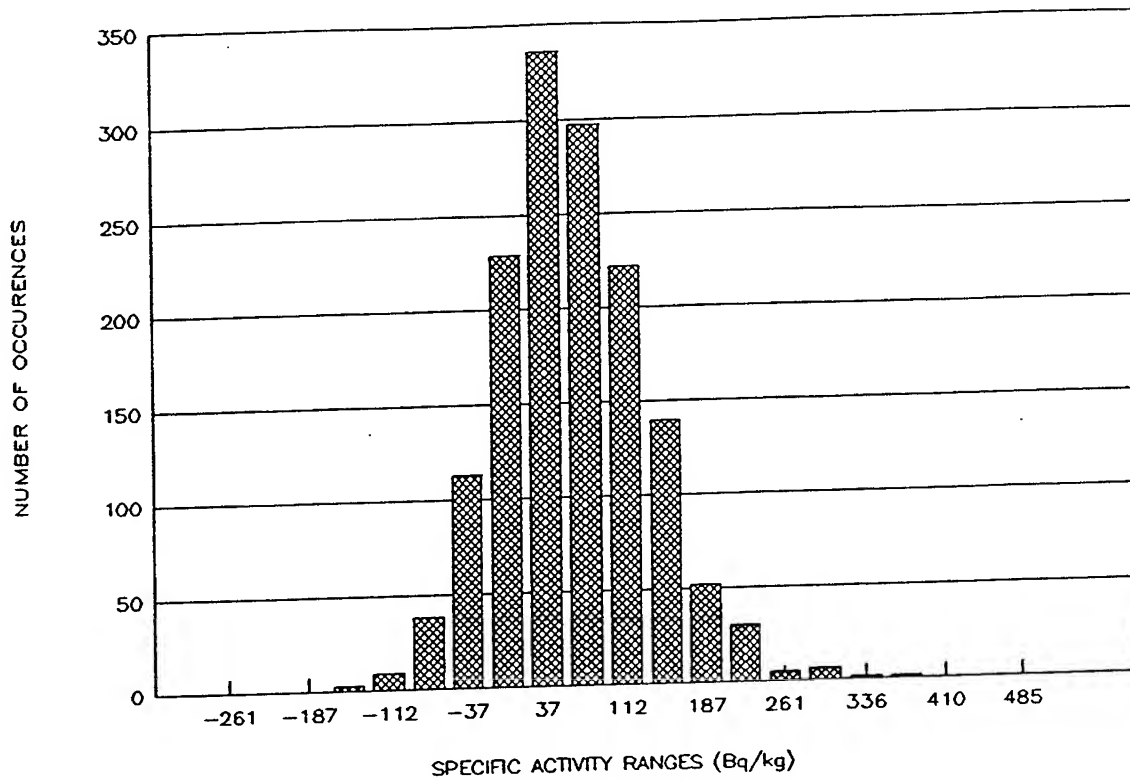
1-GATE SORTS	580	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	12	2.1%	-14000	0	-261	4000	147	12.6%
2	35	6.0%	-12000	0	-224	8000	460	39.5%
3	88	15.2%	-10000	0	-187	12000	184	15.8%
4	102	17.6%	-8000	3	-149	16000	85	7.3%
5	107	18.4%	-6000	9	-112	20000	51	4.4%
6	109	18.8%	-4000	38	-75	24000	40	3.4%
7	99	17.1%	-2000	113	-37	28000	37	3.2%
8	28	4.8%	0	229	0	32000	18	1.5%
TOTAL	580		2000	336	37	36000	18	1.5%
			4000	297	75	40000	17	1.5%
2-GATE SORTS	585	6000	222	112	44000	15	1.3%	44
DETECTR	SORTS	FREQ%	8000	140	149	48000	12	1.0%
8			10000	52	187	52000	9	0.8%
9	24	4.1%	12000	30	224	56000	6	0.5%
10	52	8.9%	14000	5	261	60000	9	0.8%
11	106	18.1%	16000	6	299	64000	4	0.3%
12	108	18.5%	18000	1	336	68000	6	0.5%
13	119	20.3%	20000	1	373	72000	3	0.3%
14	110	18.8%	22000	0	410	76000	4	0.3%
15	66	11.3%	24000	0	448	80000	5	0.4%
TOTAL	585		26000	0	485	84000	0	0.0%
			>28000	0	0	>84000	35	3.0%
			TOTAL	1482		TOTAL	1165	
SUMMARY TOTALS								
HOT PARTICLE EVENTS		1121			SORTS BY ONE GATE ONLY	580		
MULTIPARTICLE EVENTS		528			SORTS BY TWO GATES	585		
DISTRIBUTED EVENTS		78						

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

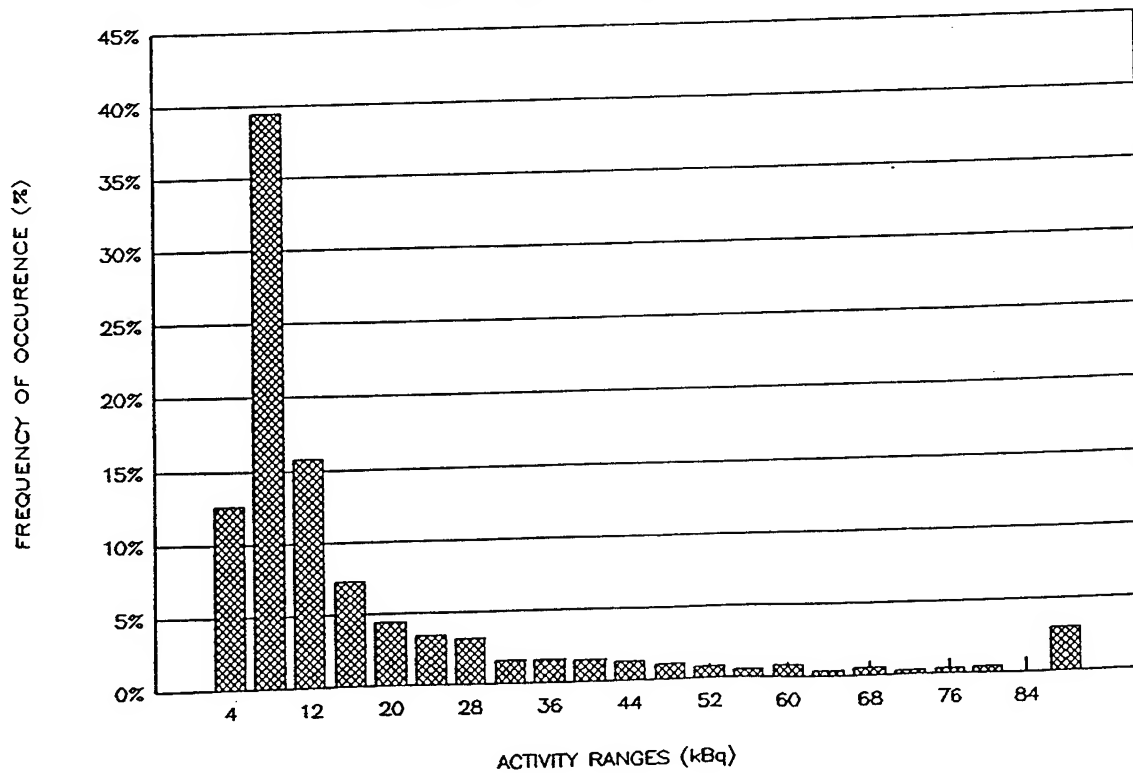
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1-LOG DATA FOR 25-Jan-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 25-Jan-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 25-Jan-93

AVERAGE BACKGROUND COUNT RATE 0.80 ± 0.03 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	1.39 tons	77.8 tons
MAXIMUM/SORT	6.7 kg	53.6 kg
MINIMUM/SORT	0.7 kg	46.9 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		98.2%
EQUIVALENT SOIL-IN-GROUND	1.10 yd ³	61.6 yd ³ 62.7 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	20,307 kBq
MAXIMUM/SORT	687 kBq
MINIMUM/SORT	2.7 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY		
MAXIMUM/SORT	9,369 kBq	6,366 kBq
MINIMUM/SORT	553 kBq	19 kBq
SPECIFIC ACTIVITY	0 Bq	-10 kBq
	6,749 Bq/kg	82 Bq/kg

WORK HISTORY

WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	07:41 AM	END SOIL PROCESSING	05:05 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	10.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	8.21 hr
DOWN-TIME	1.79 hr
TOTAL SYSTEM PAUSE	1.88 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.69 hr
SHUT-DOWN	0.40 hr
PLANT PERFORMANCE	82.1%
PRODUCTIVITY	82.1%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 2,654

NONPROCESS RECORDS (Test, calibration, etc) 6

20-SEC PROCESS RECORDS	1,477
TOTAL SORT	0 MD>0 & MND=0
NO SORT	639 AD=0 & MD=0 & MND>0
SOME SORT	838 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	1
AD=0 & MD	0
AD<0 & MD	0
ACT_P <5 kBq	291 24.7%

UNEXPLAIN	PAUSE
TIME	TIME
10:25:19	07:00
	11:11

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 14,770
 2-SEC RECORDS WITH SORTS 1,177 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 260 80.7%
 3 DETECTORS 54 16.8%
 4 DETECTORS 8 2.5%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 322
 NET 2-SEC RECORDS WITH SORTS 855
 2-SEC PERIODS WITH NO SORTS 13,915
 AVG TIME BETWEEN 2-SEC SORTS 34.5 sec

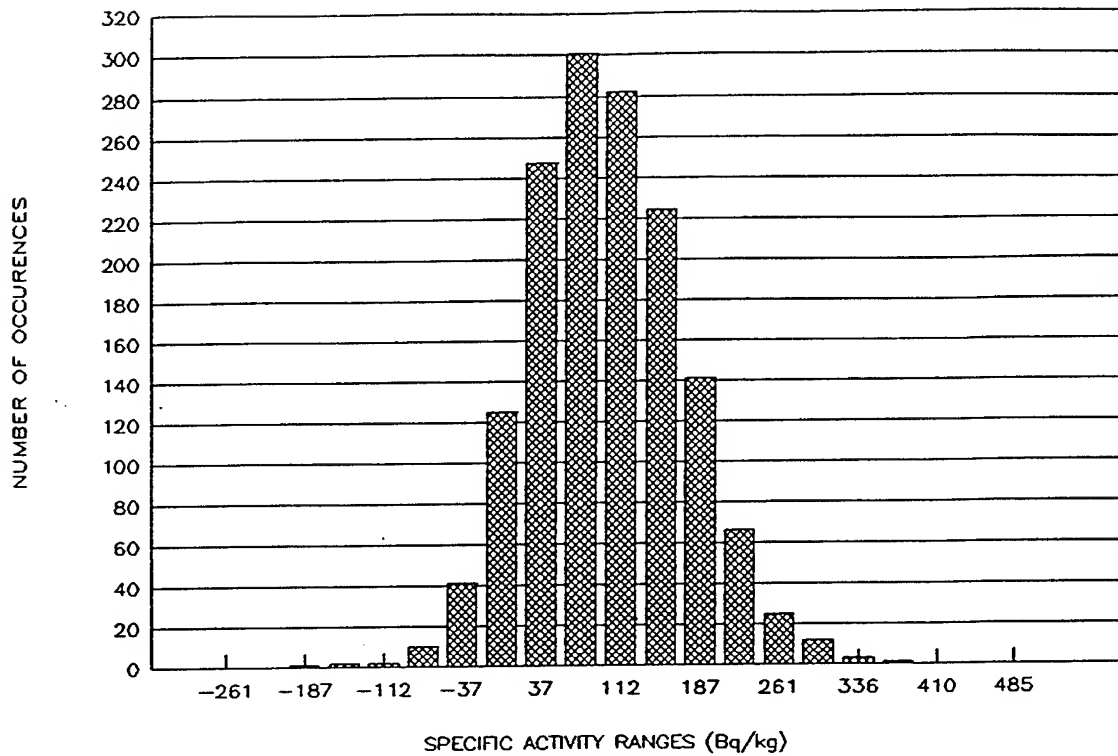
1-GATE SORTS		599	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	31	5.2%	-14000	0	-261	4000	122	10.4%	4
2	118	19.7%	-12000	0	-224	8000	514	43.7%	8
3	127	21.2%	-10000	1	-187	12000	173	14.7%	12
4	126	21.0%	-8000	2	-149	16000	94	8.0%	16
5	108	18.0%	-6000	2	-112	20000	53	4.5%	20
6	61	10.2%	-4000	10	-75	24000	49	4.2%	24
7	15	2.5%	-2000	41	-37	28000	23	2.0%	28
8	13	2.2%	0	125	0	32000	20	1.7%	32
TOTAL	599		2000	247	37	36000	29	2.5%	36
			4000	301	75	40000	11	0.9%	40
			6000	282	112	44000	10	0.8%	44
2-GATE SORTS		578	8000	224	149	48000	8	0.7%	48
DETECTR	SORTS	FREQ%				52000	5	0.4%	52
8			10000	141	187	56000	7	0.6%	56
9	80	13.8%	12000	66	224	60000	9	0.8%	60
10	108	18.7%	14000	25	261	64000	5	0.4%	64
11	133	23.0%	16000	12	299	68000	3	0.3%	68
12	120	20.8%	18000	3	336	72000	5	0.4%	72
13	86	14.9%	20000	1	373	76000	3	0.3%	76
14	34	5.9%	22000	0	410	80000	4	0.3%	80
15	17	2.9%	24000	0	448	84000	3	0.3%	84
TOTAL	578		26000	0	485				
			>28000	0	0	>84000	27	2.3%	>84
			TOTAL	1483		TOTAL	1177		
SUMMARY TOTALS									
HOT PARTICLE EVENTS			1165	SORTS BY ONE GATE ONLY			599		
MULTIPARTICLE EVENTS			909	SORTS BY TWO GATES			578		
DISTRIBUTED EVENTS			0						

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

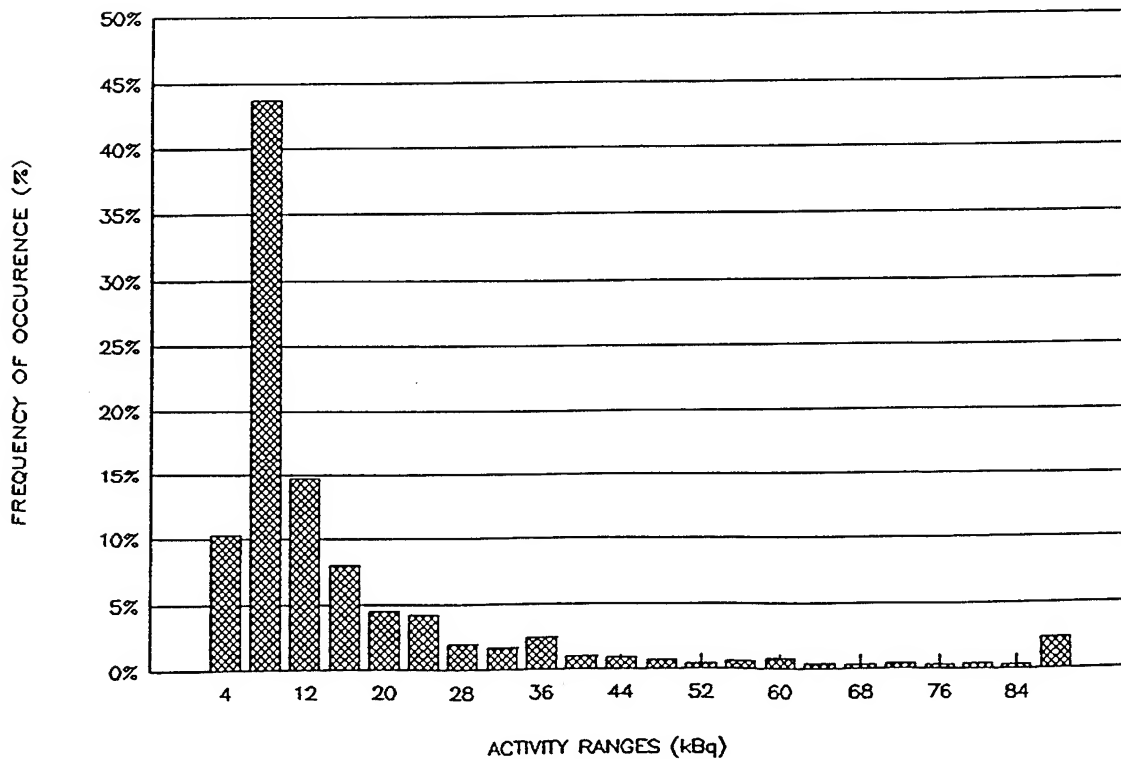
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 25-Jan-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 25-Jan-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 23-Jan-93

AVERAGE BACKGROUND COUNT RATE	0.74 ± 0.06 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		1.10 tons	55.0 tons
MAXIMUM/SORT		8.7 kg	53.6 kg
MINIMUM/SORT		0.7 kg	44.9 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			98.0%
EQUIVALENT SOIL-IN-GROUND	0.87 yd ³	43.6 yd ³	44.5 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	20,155 kBq		
MAXIMUM/SORT	646 kBq		
MINIMUM/SORT	2.0 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	8,451 kBq	3,536 kBq	
MAXIMUM/SORT	463 kBq	17 kBq	
MINIMUM/SORT	0 Bq	-12 kBq	
SPECIFIC ACTIVITY	7,701 Bq/kg	64 Bq/kg	
WORK HISTORY			
WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	08:08 AM	END SOIL PROCESSING	04:27 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr
WORK HOURS	10.0 hr		
AVAILABLE HOURS	10.0 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	5.82 hr		
DOWN-TIME	4.18 hr		
TOTAL SYSTEM PAUSE	3.92 hr		
NONAVAILABLE HOURS	0.0 hr		
START-UP	1.14 hr		
SHUT-DOWN	1.04 hr		
PLANT PERFORMANCE	58.2%		
PRODUCTIVITY	58.2%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,244		
NONPROCESS RECORDS (Test, calibration, etc)	14		
20-SEC PROCESS RECORDS	1,047		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	457 AD=0 & MD=0 & MND>0		
SOME SORT	590 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	0	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	None	07:05
ACT_P <5 kBq	362 30.2%		11:12

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 10,470 12:22
 2-SEC RECORDS WITH SORTS 1,197 (ACT_P >0 kBq) 16:30
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 271 77.4%
 3 DETECTORS 62 17.7%
 4 DETECTORS 12 3.4%
 5 DETECTORS 5 1.4%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 350
 NET 2-SEC RECORDS WITH SORTS 847
 2-SEC PERIODS WITH NO SORTS 9,623
 AVG TIME BETWEEN 2-SEC SORTS 24.7 sec

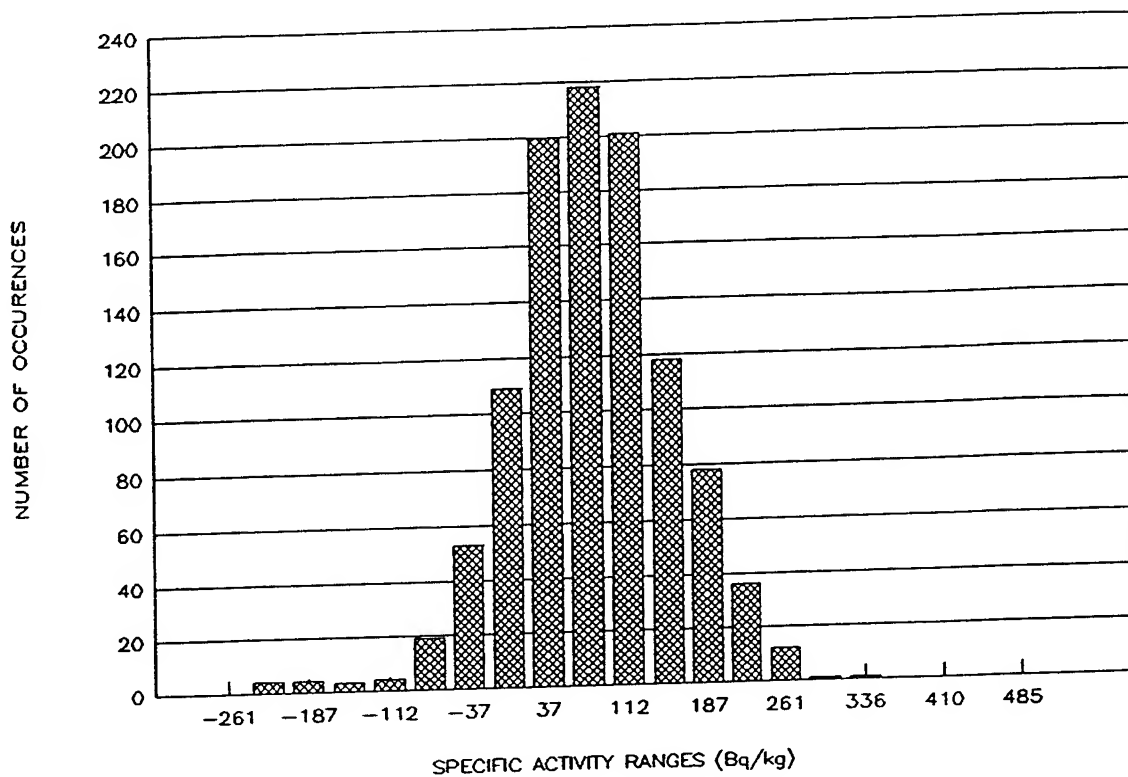
1-GATE SORTS	599	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	12	2.0%	-14000	0	-261	4000	188	15.7%
2	45	7.5%	-12000	4	-224	8000	461	38.5%
3	70	11.7%	-10000	4	-187	12000	175	14.6%
4	105	17.5%	-8000	3	-149	16000	92	7.7%
5	124	20.7%	-6000	4	-112	20000	57	4.8%
6	100	16.7%	-4000	19	-75	24000	47	3.9%
7	107	17.9%	-2000	53	-37	28000	38	3.2%
8	36	6.0%	0	109	0	32000	24	2.0%
TOTAL	599		2000	200	37	36000	13	1.1%
			4000	218	75	40000	12	1.0%
2-GATE SORTS	598		6000	201	112	44000	11	0.9%
DETECTR	SORTS	FREQ%	8000	118	149	48000	6	0.5%
8			10000	78	187	52000	10	0.8%
9	27	4.5%	12000	36	224	56000	8	0.7%
10	57	9.5%	14000	12	261	60000	7	0.6%
11	88	14.7%	16000	1	299	64000	5	0.4%
12	124	20.7%	18000	1	336	68000	2	0.2%
13	120	20.1%	20000	0	373	72000	1	0.1%
14	100	16.7%	22000	0	410	76000	6	0.5%
15	82	13.7%	24000	0	448	80000	4	0.3%
TOTAL	598		26000	0	485	84000	2	0.2%
			>28000	0	0	>84000	28	2.3%
			TOTAL	1061		TOTAL	1197	
SUMMARY TOTALS								
HOT PARTICLE EVENTS			1160	SORTS BY ONE GATE ONLY		599		
MULTIPARTICLE EVENTS			484	SORTS BY TWO GATES		598		
DISTRIBUTED EVENTS			0					

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

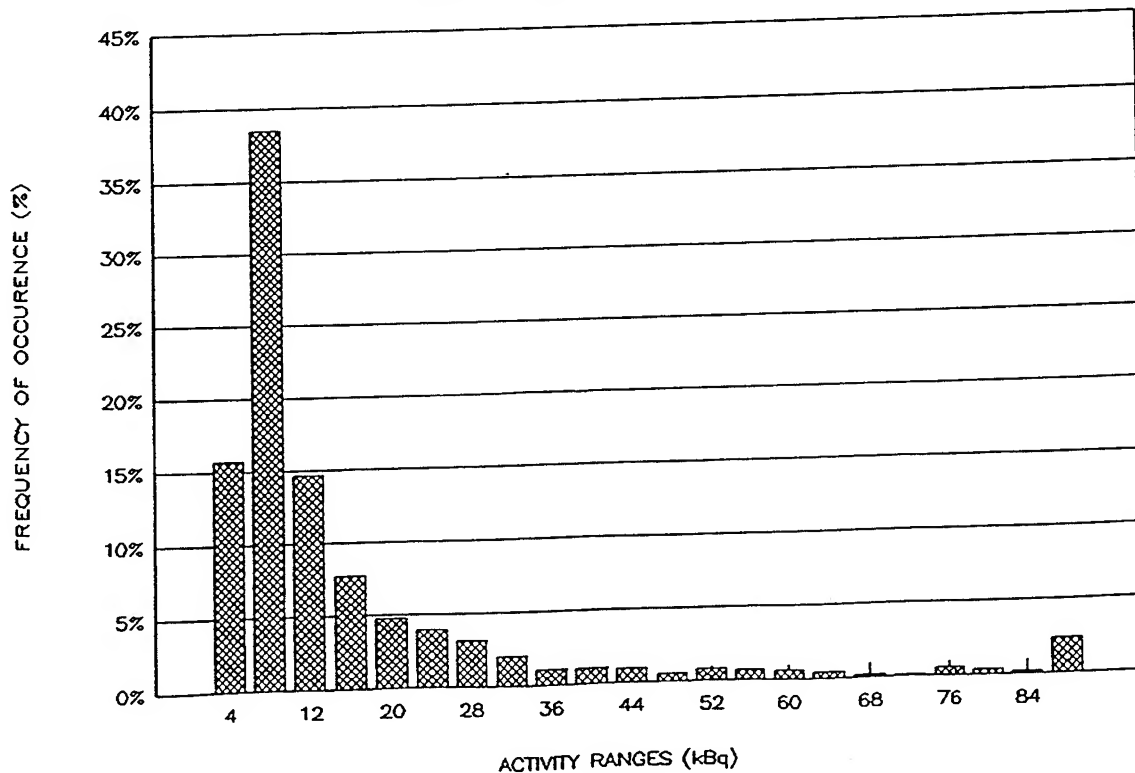
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 23-Jan-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 23-Jan-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 23-Jan-93

AVERAGE BACKGROUND COUNT RATE
SORTER SOIL DENSITY
GROUND SOIL DENSITY

0.61 ± 0.02 c/sec
1.15 tons/m³
1.65 tons/m³

MASS TOTAL

MAXIMUM/SORT
MINIMUM/SORT

CONTAMINATED

0.13 tons

53.6 kg

0.7 kg

CLEAN

1.2 tons

53.6 kg

50.9 kg

*not correct -
data missing*

WEIGHT RECOVERY OR VOLUME RECOVERY

EQUIVALENT SOIL-IN-GROUND

0.10 yd³

0.9 yd³

90.0%

1.0 yd³/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL

19,123 kBq

MAXIMUM/SORT

994 kBq

MINIMUM/SORT

2.6 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

MAXIMUM/SORT

120 kBq

259 kBq

MINIMUM/SORT

29 kBq

19 kBq

SPECIFIC ACTIVITY

0 Bq

-11 kBq

934 Bq/kg

223 Bq/kg

WORK HISTORY

WORK DAY START

07:00 AM

WORK DAY END

05:30 PM

PLANT START-UP

07:00 AM

PLANT SHUT-DOWN

05:30 PM

START SOIL PROCESSING

08:08 AM

END SOIL PROCESSING

04:28 PM

LUNCH START

11:30 AM

LUNCH PERIOD

0.5 hr

WORK HOURS

10.0 hr

AVAILABLE HOURS

10.0 hr

ACTUAL PROCESS HOURS (total 20-sec records)

0.13 hr

DOWN-TIME

9.87 hr

TOTAL SYSTEM PAUSE

8.49 hr

NONAVAILABLE HOURS

0.0 hr

START-UP

1.14 hr

SHUT-DOWN

1.03 hr

PLANT PERFORMANCE

1.3%

PRODUCTIVITY

1.3%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)

NONPROCESS RECORDS (Test, calibration, etc)

20-SEC PROCESS RECORDS

TOTAL SORT

24

NO SORT

2 MD>0 & MND=0

SOME SORT

10 AD=0 & MD=0 & MND>0

UNEXPLAINED RECORDS

12 AD>0&0<MD<MNDmax&MND<MNDmax

0<AD<1kBq & MD>0

0

0

AD=0 & MD

0

AD<0 & MD

0

ACT_P <5 kBq

254

24.0%

UNEXPLAIN

PAUSE

TIME

TIME

None

07:05

08:15

*not correct
file corrupted,
records did not
import*

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	240	08:19
2-SEC RECORDS WITH SORTS	1,058 (ACT_P >0 kBq)	08:22
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		08:24
2 DETECTORS	216 80.3%	08:24
3 DETECTORS	46 17.1%	08:26
4 DETECTORS	7 2.6%	08:26
5 DETECTORS	0 0.0%	08:28
6 DETECTORS	0 0.0%	08:28
7 DETECTORS	0 0.0%	08:29
8 DETECTORS	0 0.0%	08:30
TOTAL	269	08:31
NET 2-SEC RECORDS WITH SORTS	789	08:32
2-SEC PERIODS WITH NO SORTS	(549)	08:34
AVG TIME BETWEEN 2-SEC SORTS	0.6 sec	More

1-GATE SORTS	531	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	25	4.7%	-14000	0	-261	4000	98	9.3%
2	60	11.3%	-12000	0	-224	8000	479	45.3%
3	105	19.8%	-10000	1	-187	12000	161	15.2%
4	95	17.9%	-8000	0	-149	16000	93	8.8%
5	100	18.8%	-6000	2	-112	20000	53	5.0%
6	82	15.4%	-4000	0	-75	24000	19	1.8%
7	53	10.0%	-2000	0	-37	28000	22	2.1%
8	11	2.1%	0	3	0	32000	23	2.2%
TOTAL	531		2000	0	37	36000	12	1.1%
			4000	1	75	40000	18	1.7%
			6000	0	112	44000	8	0.8%
2-GATE SORTS	527		8000	0	149	48000	8	0.8%
DETECTR	SORTS	FREQ%		1	187	52000	6	0.6%
8			10000	3	224	56000	6	0.6%
9	52	9.9%	12000	3	261	60000	8	0.8%
10	69	13.1%	14000	4	299	64000	5	0.5%
11	102	19.4%	16000	4	336	68000	1	0.1%
12	106	20.1%	18000	4	373	72000	3	0.3%
13	94	17.8%	20000	0	410	76000	2	0.2%
14	77	14.6%	22000	0	448	80000	3	0.3%
15	27	5.1%	24000	0	485	84000	2	0.2%
TOTAL	527		26000	0	0	>84000	28	2.6%
			>28000	0	0	TOTAL	1058	>84
			TOTAL	26				

SUMMARY TOTALS

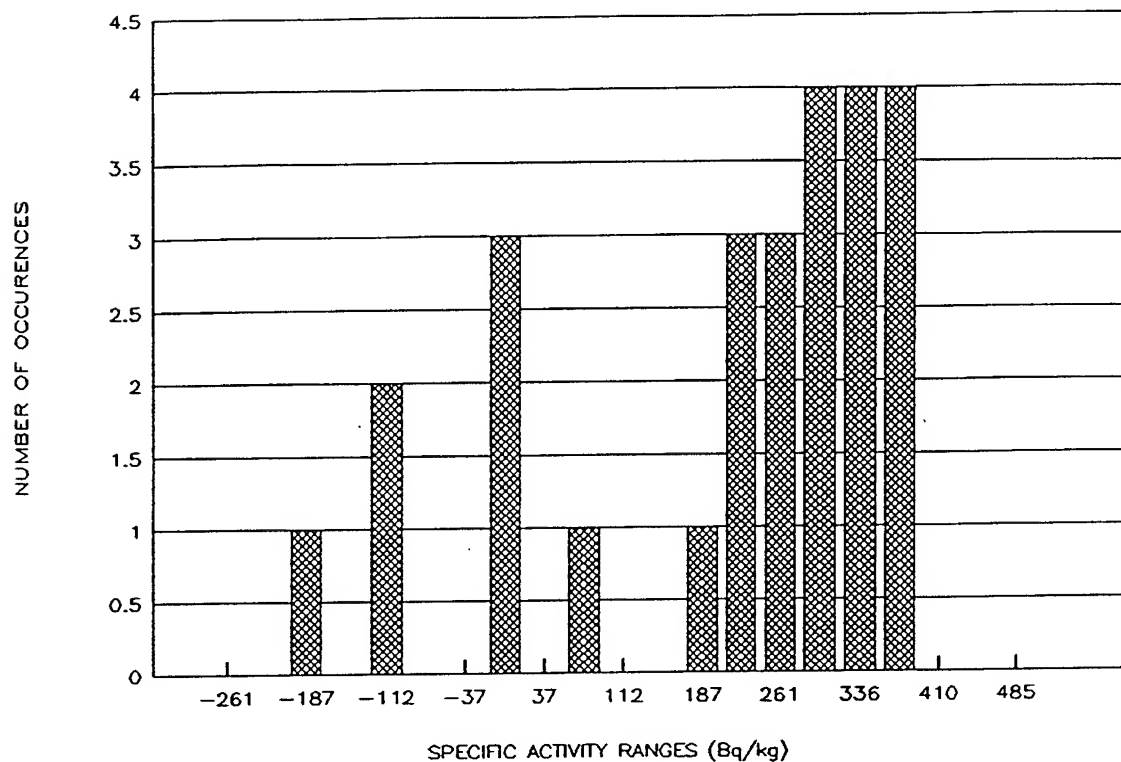
HOT PARTICLE EVENTS	14	SORTS BY ONE GATE ONLY	531
MULTIPARTICLE EVENTS	19	SORTS BY TWO GATES	527
DISTRIBUTED EVENTS	158		

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

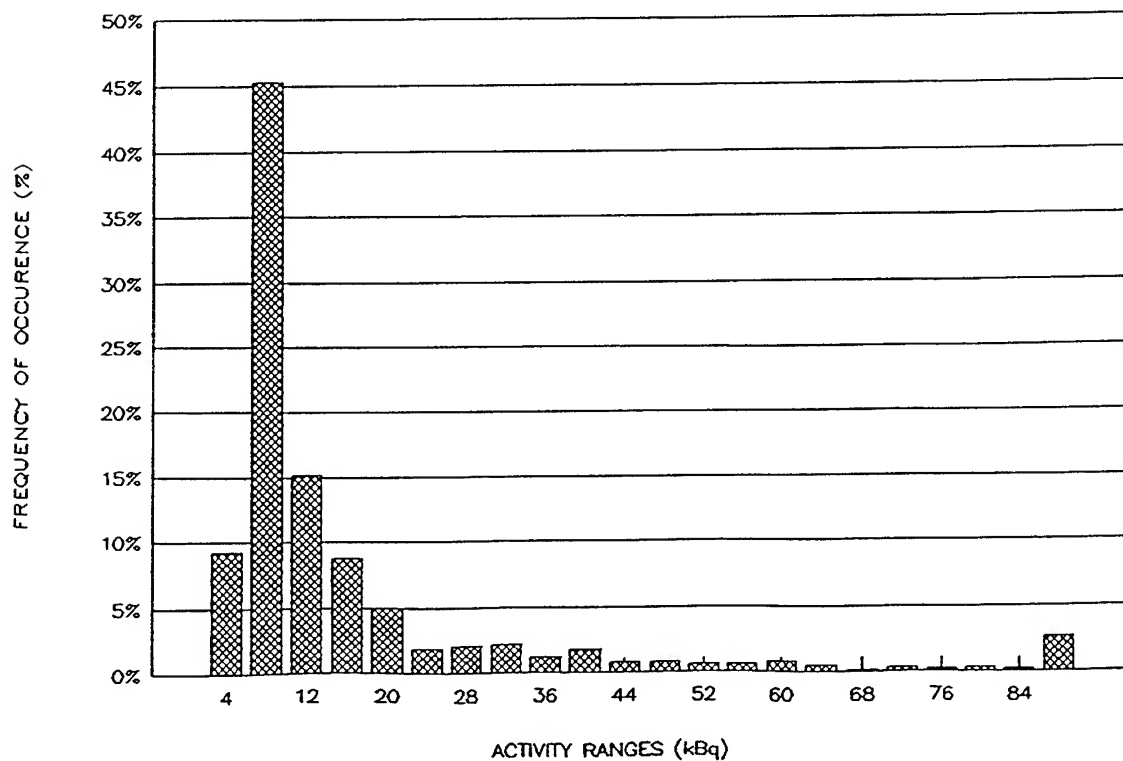
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 23-Jan-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 23-Jan-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 22-Jan-93

AVERAGE BACKGROUND COUNT RATE	0.75 ± 0.05 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	2.65 tons	69.4 tons	
MAXIMUM/SORT	53.6 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	45.5 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			96.3%
EQUIVALENT SOIL-IN-GROUND	2.10 yd ³	55.0 yd ³	57.1 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	56,145 kBq		
MAXIMUM/SORT	7,864 kBq		
MINIMUM/SORT	2.0 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	22,575 kBq	10,160 kBq	
MINIMUM/SORT	5976 kBq	19 kBq	
SPECIFIC ACTIVITY	0 Bq	-9 kBq	
	8,534 Bq/kg	146 Bq/kg	
WORK HISTORY			
WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	08:03 AM	END SOIL PROCESSING	05:00 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr
WORK HOURS	10.0 hr		
AVAILABLE HOURS	10.0 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	7.47 hr		
DOWN-TIME	2.53 hr		
TOTAL SYSTEM PAUSE	2.60 hr		
NONAVAILABLE HOURS	0.0 hr		
START-UP	1.06 hr		
SHUT-DOWN	0.50 hr		
PLANT PERFORMANCE	74.7%		
PRODUCTIVITY	74.7%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	3,238		
NONPROCESS RECORDS (Test, calibration, etc)	10		
20-SEC PROCESS RECORDS	1,344		
TOTAL SORT	14 MD>0 & MND=0		
NO SORT	382 AD=0 & MD=0 & MND>0		
SOME SORT	948 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	0	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	None	06:54
ACT_P <5 kBq	577 30.5%		11:00

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 13,440
 2-SEC RECORDS WITH SORTS 1,894 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 434 78.5%
 3 DETECTORS 90 16.3%
 4 DETECTORS 24 4.3%
 5 DETECTORS 5 0.9%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 553
 NET 2-SEC RECORDS WITH SORTS 1,341
 2-SEC PERIODS WITH NO SORTS 12,099
 AVG TIME BETWEEN 2-SEC SORTS 20.0 sec

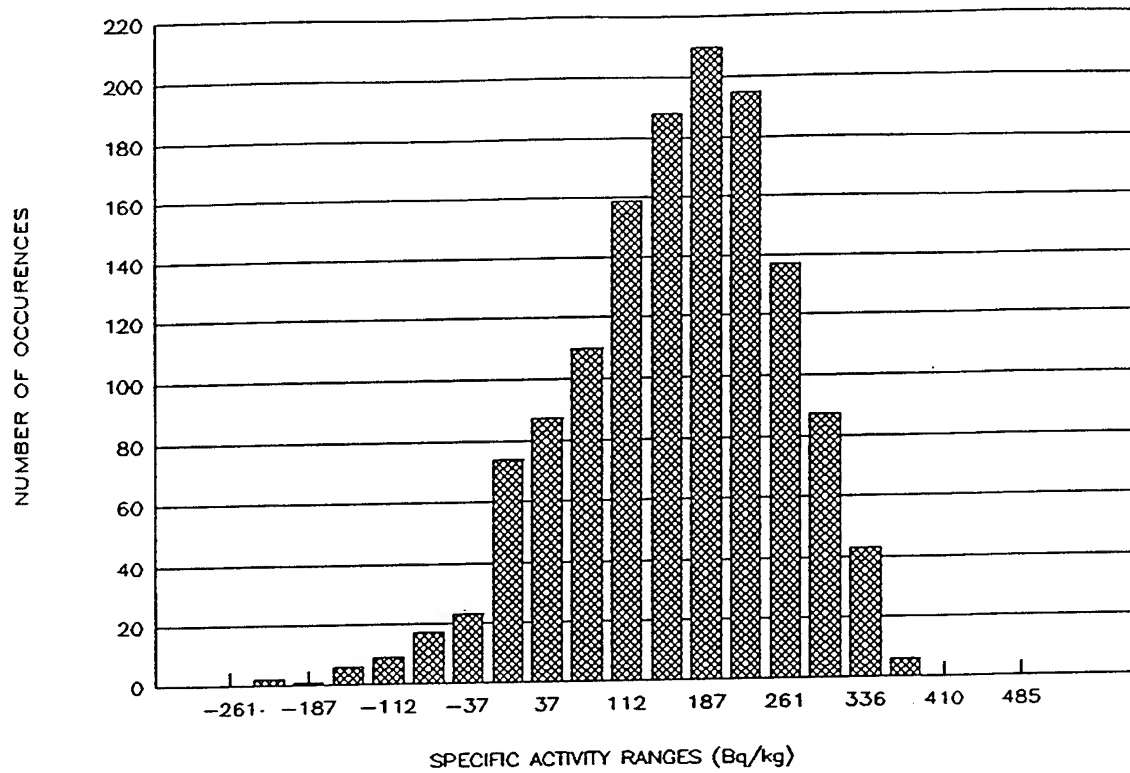
1-GATE SORTS	963	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	56	5.8%	-14000	0	-261	4000	293	15.5%
2	116	12.0%	-12000	2	-224	8000	743	39.2%
3	151	15.7%	-10000	1	-187	12000	264	13.9%
4	151	15.7%	-8000	6	-149	16000	150	7.9%
5	180	18.7%	-6000	9	-112	20000	96	5.1%
6	154	16.0%	-4000	17	-75	24000	48	2.5%
7	118	12.3%	-2000	23	-37	28000	45	2.4%
8	37	3.8%	0	74	0	32000	42	2.2%
TOTAL	963		2000	87	37	36000	32	1.7%
			4000	110	75	40000	26	1.4%
2-GATE SORTS	931	6000	159	112	44000	10	0.5%	44
DETECTR	SORTS	FREQ%	8000	188	149	48000	17	0.9%
8			10000	210	187	52000	11	0.6%
9	95	10.2%	12000	195	224	56000	12	0.6%
10	128	13.7%	14000	137	261	60000	12	0.6%
11	167	17.9%	16000	87	299	64000	9	0.5%
12	162	17.4%	18000	43	336	68000	7	0.4%
13	162	17.4%	20000	6	373	72000	12	0.6%
14	128	13.7%	22000	0	410	76000	2	0.1%
15	89	9.6%	24000	0	448	80000	2	0.1%
TOTAL	931		26000	0	485	84000	4	0.2%
			>28000	0	0	>84000	57	3.0%
			TOTAL	1354		TOTAL	1894	
SUMMARY TOTALS								
HOT PARTICLE EVENTS			1833	SORTS BY ONE GATE ONLY		963		
MULTIPARTICLE EVENTS			1054	SORTS BY TWO GATES		931		
DISTRIBUTED EVENTS			1070					

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

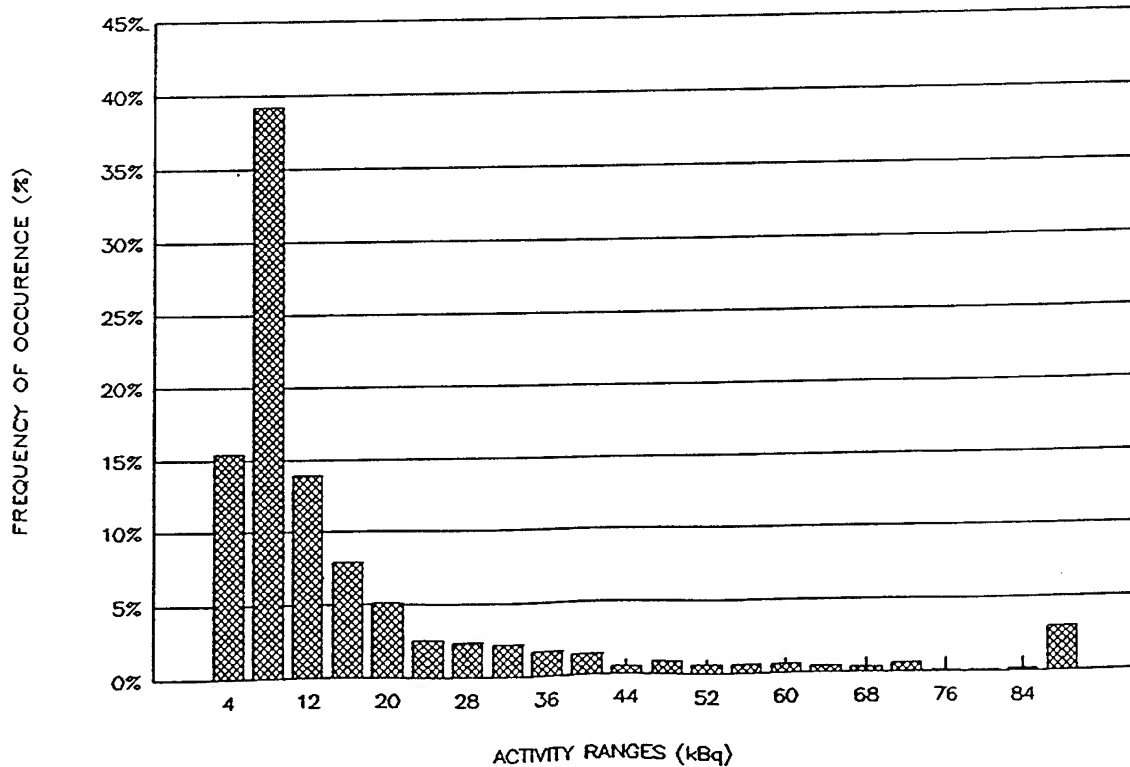
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 22-Jan-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 22-Jan-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 22-Jan-93

AVERAGE BACKGROUND COUNT RATE 0.80 ± 0.02 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	3.89 tons	67.5 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	44.9 kg

		94.5%
WEIGHT RECOVERY OR VOLUME RECOVERY		
EQUIVALENT SOIL-IN-GROUND	3.09 yd ³	53.5 yd ³ 56.6 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	30,976 kBq
MAXIMUM/SORT	544 kBq
MINIMUM/SORT	2.6 kBq

	15,776 kBq	11,446 kBq
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY		
MAXIMUM/SORT	439 kBq	18 kBq
MINIMUM/SORT	0 Bq	-13 kBq
SPECIFIC ACTIVITY	4,051 Bq/kg	170 Bq/kg

WORK HISTORY

WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	08:03 AM	END SOIL PROCESSING	04:56 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	10.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	7.41 hr
DOWN-TIME	2.59 hr
TOTAL SYSTEM PAUSE	2.60 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	1.06 hr
SHUT-DOWN	0.55 hr
PLANT PERFORMANCE	74.1%
PRODUCTIVITY	74.1%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	3,244
NONPROCESS RECORDS (Test, calibration, etc)	12

20-SEC PROCESS RECORDS	1,333
TOTAL SORT	25 MD>0 & MND=0
NO SORT	231 AD=0 & MD=0 & MND>0
SOME SORT	1,077 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	3
AD=0 & MD	0
AD<0 & MD	0
ACT_P <5 kBq	531 27.8%

UNEXPLAIN	PAUSE
TIME	TIME
09:43:05	06:54
14:46:45	11:00

JA SOIL CLEANUP PLANT LOG SUMMARY

15:23:25

2-SEC COUNT PERIODS 13,330
 2-SEC RECORDS WITH SORTS 1,911 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	450	81.4%
3 DETECTORS	89	16.1%
4 DETECTORS	12	2.2%
5 DETECTORS	2	0.4%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	553	

NET 2-SEC RECORDS WITH SORTS 1,358
 2-SEC PERIODS WITH NO SORTS 11,972
 AVG TIME BETWEEN 2-SEC SORTS 19.6 sec

1-GATE SORTS DETECTR	957 SORTS	957 FREQ%	ACT_NO (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT (#)	FREQ%	ACT_P (kBq)
1	20	2.1%	-14000	6	-261	4000	246	12.9%	4
2	105	11.0%	-12000	2	-224	8000	835	43.7%	8
3	162	16.9%	-10000	1	-187	12000	273	14.3%	12
4	183	19.1%	-8000	1	-149	16000	150	7.8%	16
5	177	18.5%	-6000	0	-112	20000	76	4.0%	20
6	162	16.9%	-4000	1	-75	24000	70	3.7%	24
7	127	13.3%	-2000	6	-37	28000	39	2.0%	28
8	21	2.2%	0	52	0	32000	25	1.3%	32
TOTAL	957		2000	47	37	36000	22	1.2%	36
			4000	104	75	40000	23	1.2%	40
			6000	154	112	44000	24	1.3%	44
2-GATE SORTS	954		8000	231	149	48000	11	0.6%	48
DETECTR	SORTS	FREQ%	10000	233	187	52000	20	1.0%	52
8			12000	189	224	56000	13	0.7%	56
9	52	5.5%	14000	164	261	60000	7	0.4%	60
10	104	10.9%	16000	101	299	64000	7	0.4%	64
11	193	20.2%	18000	51	336	68000	5	0.3%	68
12	192	20.1%	20000	2	373	72000	4	0.2%	72
13	171	17.9%	22000	0	410	76000	4	0.2%	76
14	162	17.0%	24000	0	448	80000	4	0.2%	80
15	80	8.4%	26000	0	485	84000	3	0.2%	84
TOTAL	954		>28000	0	0	>84000	50	2.6%	>84
			TOTAL	1345		TOTAL	1911		

SUMMARY TOTALS

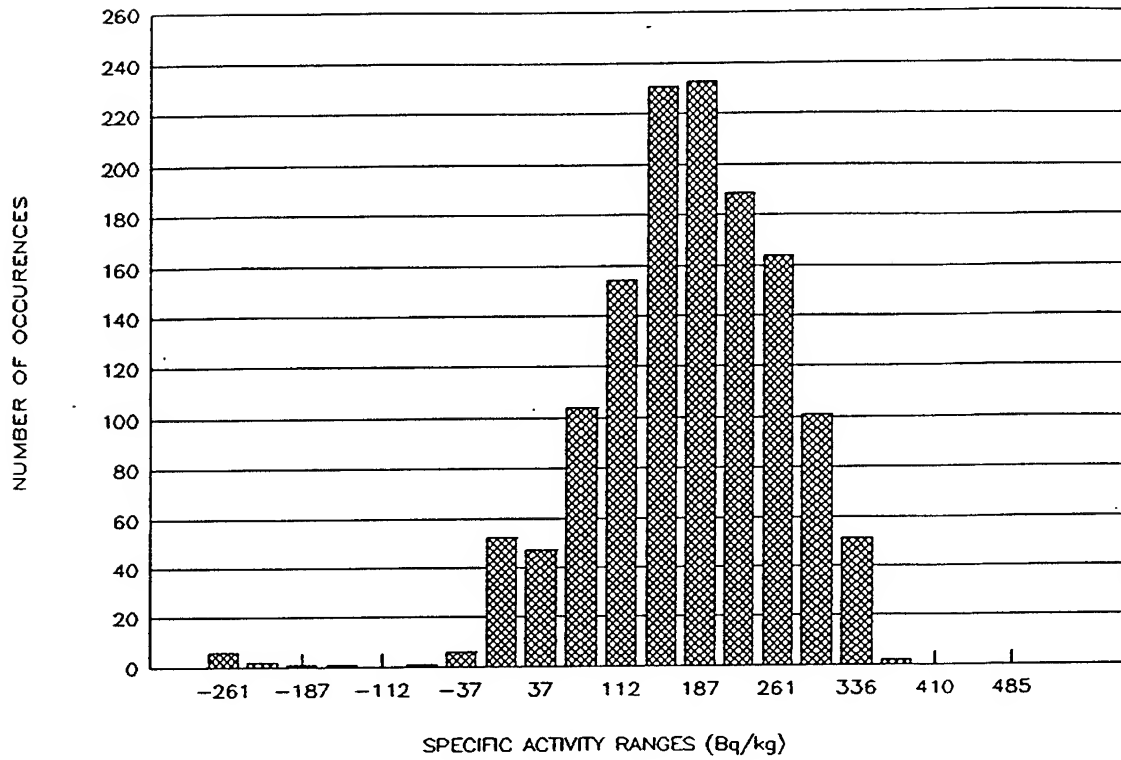
HOT PARTICLE EVENTS	1907	SORTS BY ONE GATE ONLY	957
MULTIPARTICLE EVENTS	2027	SORTS BY TWO GATES	954
DISTRIBUTED EVENTS	1890		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

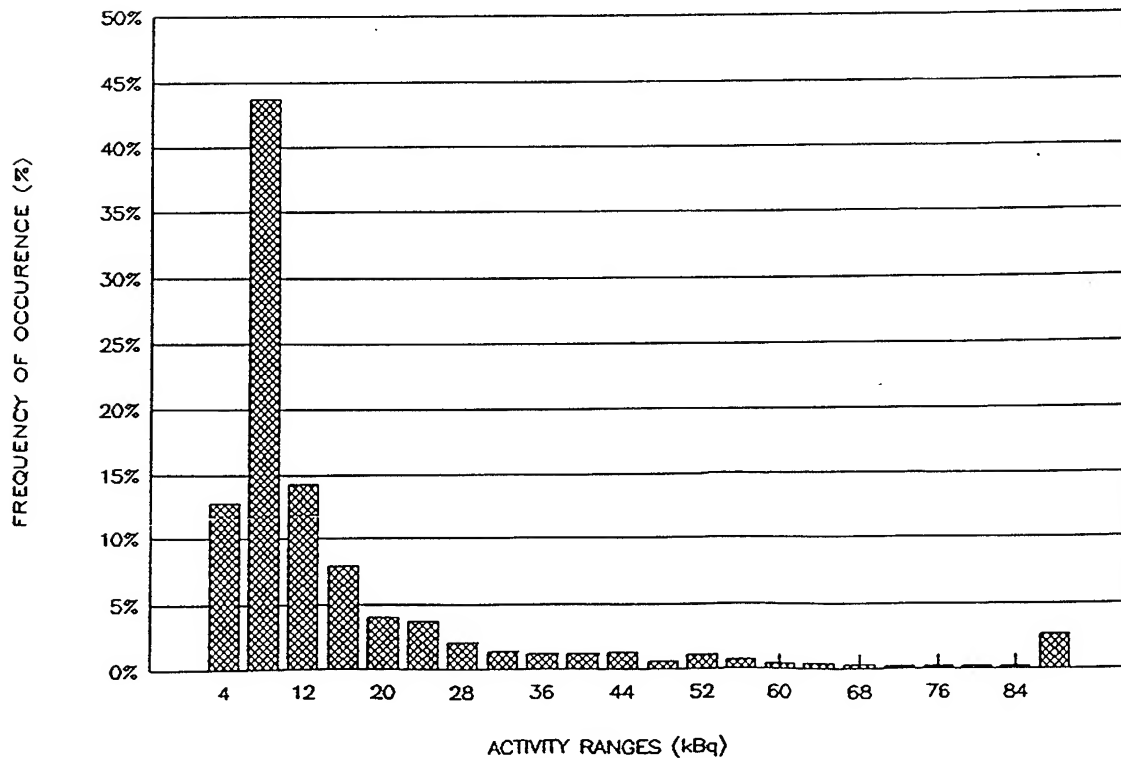
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 22-Jan-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 22-Jan-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 20-Jan-93

AVERAGE BACKGROUND COUNT RATE 0.72 ± 0.06 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN	
MASS TOTAL	0.92 tons	27.3 tons	
MAXIMUM/SORT	53.6 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	46.9 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			96.8%
EQUIVALENT SOIL-IN-GROUND	0.73 yd ³	21.6 yd ³	22.3 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	12,791 kBq
MAXIMUM/SORT	1,138 kBq
MINIMUM/SORT	2.7 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

MAXIMUM/SORT	5,690 kBq	4,682 kBq
MINIMUM/SORT	765 kBq	19 kBq
SPECIFIC ACTIVITY	0 Bq	-15 kBq
	6,215 Bq/kg	172 Bq/kg

WORK HISTORY		WORK DAY END	05:30 PM
WORK DAY START	07:00 AM	PLANT SHUT-DOWN	11:30 AM
PLANT START-UP	07:00 AM	END SOIL PROCESSING	11:02 AM
START SOIL PROCESSING	08:07 AM	LUNCH PERIOD	0.5 hr
LUNCH START	11:30 AM		

WORK HOURS	10.0 hr
AVAILABLE HOURS	4.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	2.92 hr
DOWN-TIME	1.58 hr
TOTAL SYSTEM PAUSE	1.21 hr
NONAVAILABLE HOURS	5.5 hr
START-UP	1.12 hr
SHUT-DOWN	0.47 hr
PLANT PERFORMANCE	64.9%
PRODUCTIVITY	29.2%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	1,296		
NONPROCESS RECORDS (Test, calibration, etc)	8		
20-SEC PROCESS RECORDS	526		
TOTAL SORT	2 MD>0 & MND=0		
NO SORT	150 AD=0 & MD=0 & MND>0		
SOME SORT	374 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	0	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	None	06:53
ACT_P <5 kBq	259 33.6%		07:26

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 5,260 07:55
 2-SEC RECORDS WITH SORTS 770 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 184 82.1%
 3 DETECTORS 32 14.3%
 4 DETECTORS 6 2.7%
 5 DETECTORS 2 0.9%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 224
 NET 2-SEC RECORDS WITH SORTS 546
 2-SEC PERIODS WITH NO SORTS 4,714
 AVG TIME BETWEEN 2-SEC SORTS 19.3 sec

1-GATE SORTS DETECTR	SORTS	373 FREQ%	ACT_ND (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT FREQ% (#)	ACT_P (kBq)
1	18	4.8%	-14000	1	-261	4000	112 14.5%	4
2	41	11.0%	-12000	0	-224	8000	337 43.8%	8
3	61	16.4%	-10000	0	-187	12000	100 13.0%	12
4	55	14.7%	-8000	0	-149	16000	52 6.8%	16
5	55	14.7%	-6000	1	-112	20000	35 4.5%	20
6	66	17.7%	-4000	0	-75	24000	24 3.1%	24
7	61	16.4%	-2000	0	-37	28000	19 2.5%	28
8	16	4.3%	0	11	0	32000	17 2.2%	32
TOTAL	373		2000	17	37	36000	11 1.4%	36
			4000	35	75	40000	3 0.4%	40
2-GATE SORTS		397	6000	63	112	44000	7 0.9%	44
DETECTR	SORTS	FREQ%	8000	97	149	48000	12 1.6%	48
8			10000	96	187	52000	3 0.4%	52
9	34	8.6%	12000	100	224	56000	1 0.1%	56
10	57	14.4%	14000	55	261	60000	8 1.0%	60
11	64	16.1%	16000	36	299	64000	3 0.4%	64
12	56	14.1%	18000	19	336	68000	5 0.6%	68
13	67	16.9%	20000	3	373	72000	2 0.3%	72
14	72	18.1%	22000	0	410	76000	2 0.3%	76
15	47	11.8%	24000	0	448	80000	2 0.3%	80
TOTAL	397		26000	0	485	84000	1 0.1%	84
			>28000	0	0	>84000	14 1.8%	>84
			TOTAL	534		TOTAL	770	

SUMMARY TOTALS

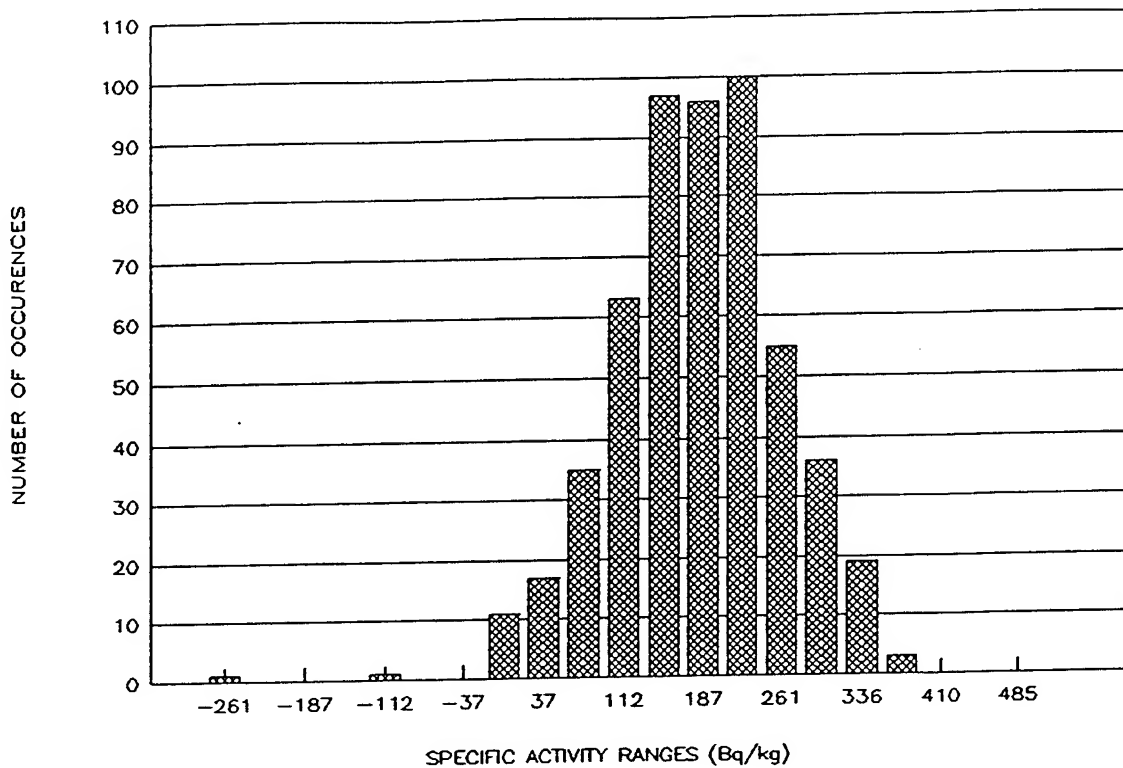
HOT PARTICLE EVENTS	773	SORTS BY ONE GATE ONLY	373
MULTIPARTICLE EVENTS	441	SORTS BY TWO GATES	397
DISTRIBUTED EVENTS	156		

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

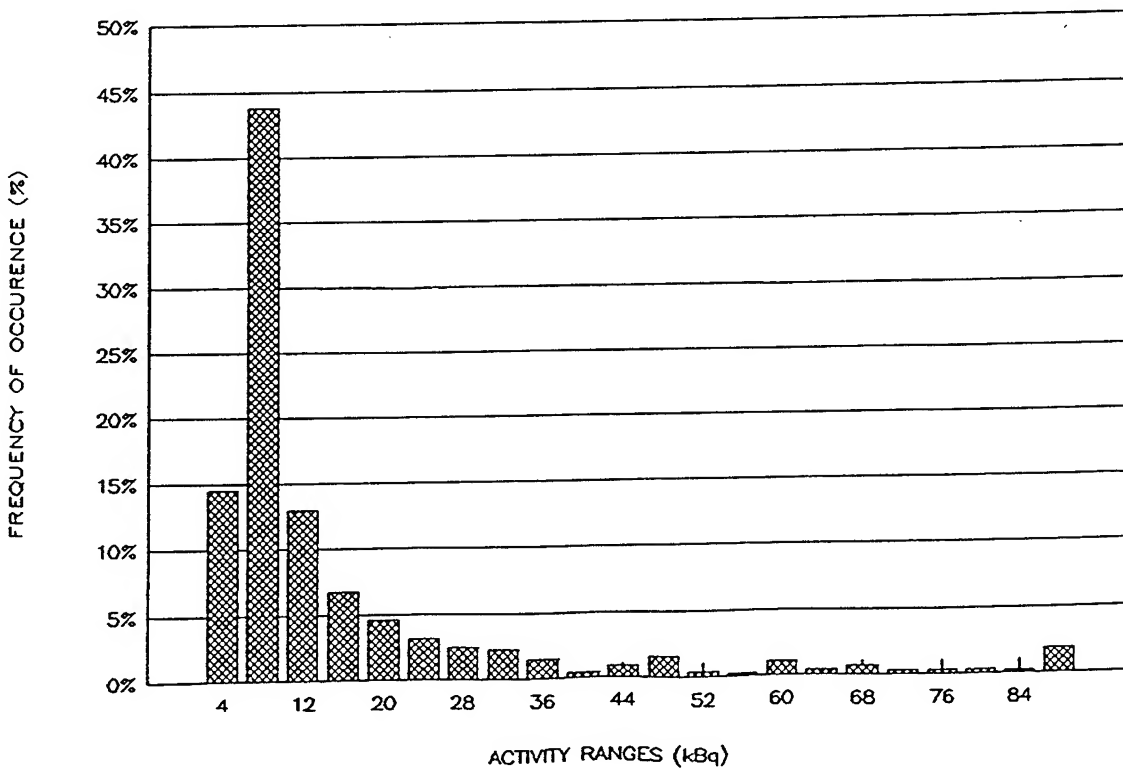
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1-LOG DATA FOR 20-Jan-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 20-Jan-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 20-Jan-93

AVERAGE BACKGROUND COUNT RATE 0.79 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	1.53 tons	26.5 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	41.5 kg

		94.5%
WEIGHT RECOVERY OR VOLUME RECOVERY		
EQUIVALENT SOIL-IN-GROUND	1.21 yd ³	21.0 yd ³ 22.2 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	13,291 kBq
MAXIMUM/SORT	456 kBq
MINIMUM/SORT	2.7 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

	8,009 kBq	4,334 kBq
MAXIMUM/SORT	364 kBq	17 kBq
MINIMUM/SORT	0 Bq	-7 kBq
SPECIFIC ACTIVITY	5,236 Bq/kg	164 Bq/kg

WORK HISTORY

WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	11:30 AM
START SOIL PROCESSING	08:07 AM	END SOIL PROCESSING	11:01 AM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	4.5 hr
ACTUAL PROCESS HOURS (total 20-sec records)	2.91 hr
DOWN-TIME	1.59 hr
TOTAL SYSTEM PAUSE	1.21 hr
NONAVAILABLE HOURS	5.5 hr
START-UP	1.12 hr
SHUT-DOWN	0.48 hr
PLANT PERFORMANCE	64.6%
PRODUCTIVITY	29.1%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 1,284

NONPROCESS RECORDS (Test, calibration, etc) 13

20-SEC PROCESS RECORDS 523

TOTAL SORT	7 MD>0 & MND=0
NO SORT	76 AD=0 & MD=0 & MND>0
SOME SORT	440 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0

0<AD<1kBq & MD>0 0

AD=0 & MD 0

AD<0 & MD 0

ACT_P <5 kBq 211 27.7%

UNEXPLAIN	PAUSE
TIME	TIME
None	06:53
	07:26

JA SOIL CLEANUP PLANT LOG SUMMARY

07:55

2-SEC COUNT PERIODS 5,230

2-SEC RECORDS WITH SORTS 761 (ACT_P >0 kBq)

2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	166	79.0%
3 DETECTORS	31	14.8%
4 DETECTORS	8	3.8%
5 DETECTORS	5	2.4%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	210	

NET 2-SEC RECORDS WITH SORTS 551

2-SEC PERIODS WITH NO SORTS 4,679

AVG TIME BETWEEN 2-SEC SORTS 19.0 sec

1-GATE SORTS DETECTR	SORTS	395 FREQ%	ACT_NO (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT FREQ% (#)	ACT_P (kBq)
1	15	3.8%	-14000	0	-261	4000	93 12.2%	4
2	28	7.1%	-12000	0	-224	8000	342 44.9%	8
3	63	15.9%	-10000	3	-187	12000	107 14.1%	12
4	94	23.8%	-8000	0	-149	16000	64 8.4%	16
5	104	26.3%	-6000	2	-112	20000	37 4.9%	20
6	57	14.4%	-4000	2	-75	24000	23 3.0%	24
7	31	7.8%	-2000	1	-37	28000	13 1.7%	28
8	3	0.8%	0	20	0	32000	11 1.4%	32
TOTAL	395		2000	20	37	36000	7 0.9%	36
			4000	50	75	40000	5 0.7%	40
			6000	52	112	44000	2 0.3%	44
2-GATE SORTS DETECTR	SORTS	366 FREQ%	8000	94	149	48000	4 0.5%	48
8			10000	105	187	52000	9 1.2%	52
9	20	5.5%	12000	92	224	56000	4 0.5%	56
10	42	11.5%	14000	59	261	60000	2 0.3%	60
11	83	22.7%	16000	27	299	64000	5 0.7%	64
12	89	24.3%	18000	9	336	68000	4 0.5%	68
13	68	18.6%	20000	0	373	72000	3 0.4%	72
14	46	12.6%	22000	0	410	76000	1 0.1%	76
15	18	4.9%	24000	0	448	80000	1 0.1%	80
TOTAL	366		26000	0	485	84000	0 0.0%	84
			>28000	0	0	>84000	24 3.2%	>84
			TOTAL	536		TOTAL	761	

SUMMARY TOTALS

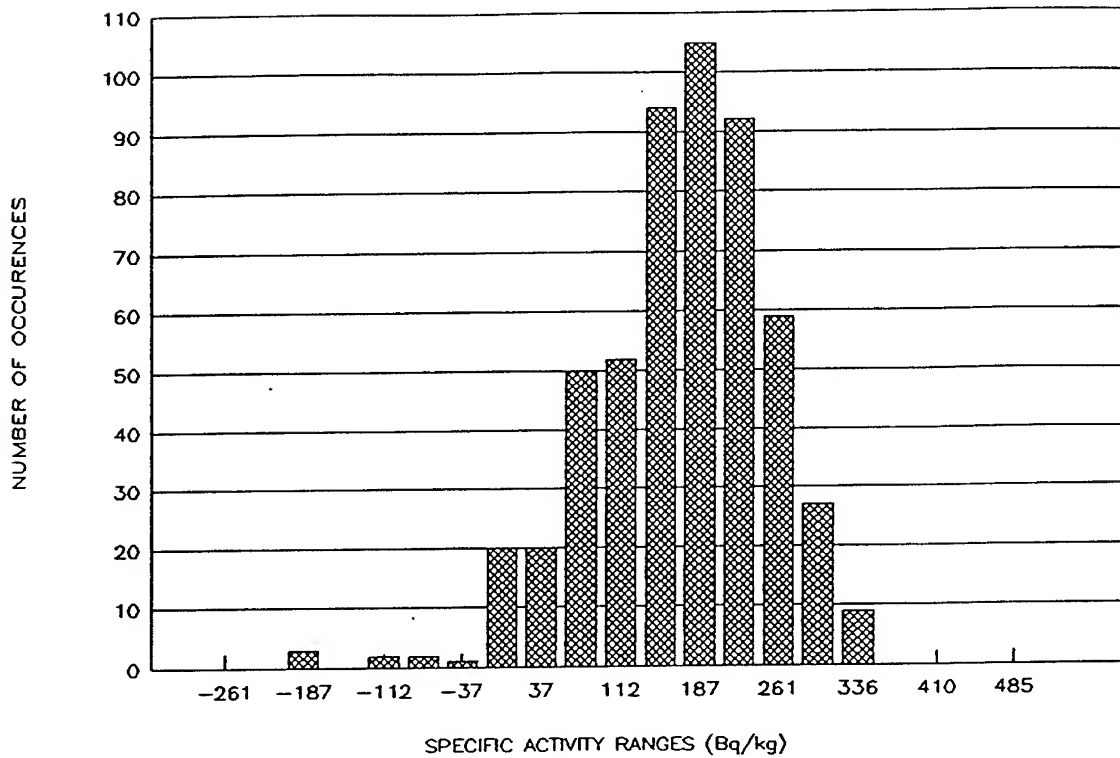
HOT PARTICLE EVENTS	754	SORTS BY ONE GATE ONLY	395
MULTIPARTICLE EVENTS	1005	SORTS BY TWO GATES	366
DISTRIBUTED EVENTS	528		

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

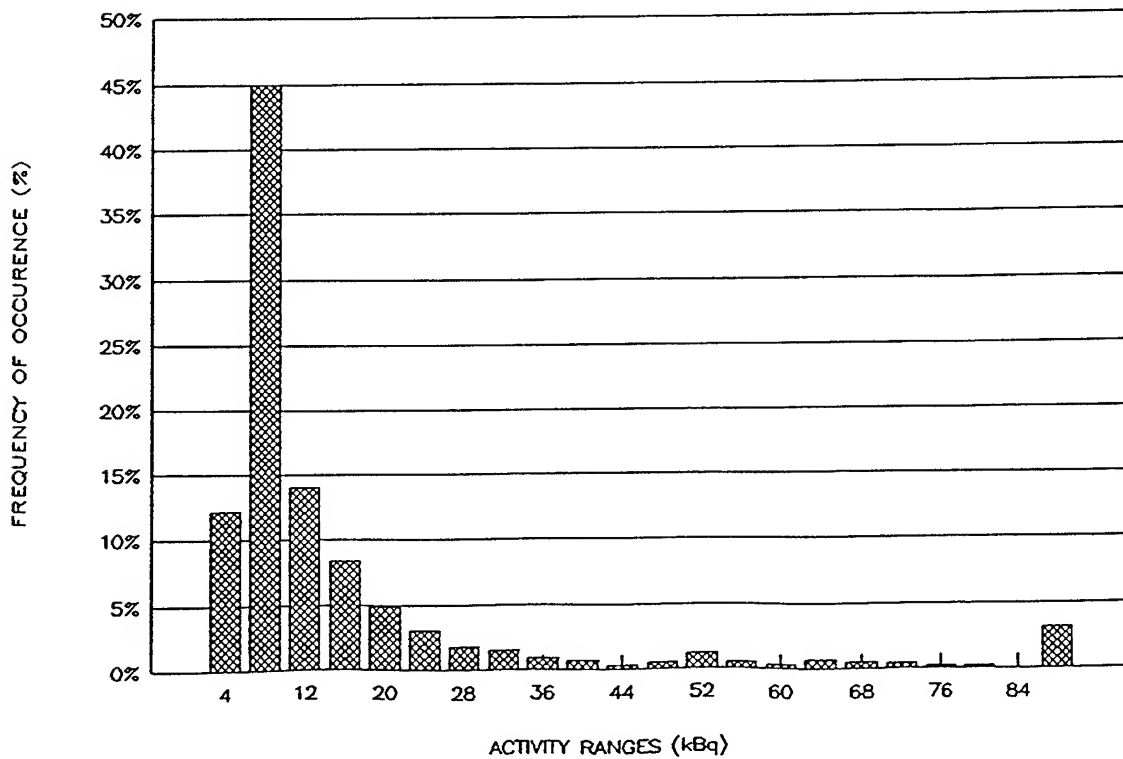
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 20-Jan-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 20-Jan-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 19-Jan-93

AVERAGE BACKGROUND COUNT RATE 0.71 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	3.58 tons	68.2 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	43.5 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		95.0%
EQUIVALENT SOIL-IN-GROUND	2.84 yd ³	54.0 yd ³ 56.9 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	27,137 kBq
MAXIMUM/SORT	568 kBq
MINIMUM/SORT	2.3 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	13,083 kBq	12,522 kBq
MAXIMUM/SORT	442 kBq	19 kBq
MINIMUM/SORT	0 Bq	-3 kBq
SPECIFIC ACTIVITY	3,655 Bq/kg	184 Bq/kg

WORK HISTORY		WORK DAY END	05:30 PM
WORK DAY START	07:00 AM	PLANT SHUT-DOWN	05:30 PM
PLANT START-UP	07:00 AM	END SOIL PROCESSING	05:02 PM
START SOIL PROCESSING	07:38 AM	LUNCH PERIOD	0.5 hr
LUNCH START	11:30 AM		

WORK HOURS	10.0 hr
AVAILABLE HOURS	10.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	7.44 hr
DOWN-TIME	2.56 hr
TOTAL SYSTEM PAUSE	2.57 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.65 hr
SHUT-DOWN	0.45 hr
PLANT PERFORMANCE	74.4%
PRODUCTIVITY	74.4%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	3,179
NONPROCESS RECORDS (Test, calibration, etc)	4

20-SEC PROCESS RECORDS	1,339
TOTAL SORT	31 MD>0 & MND=0
NO SORT	359 AD=0 & MD=0 & MND>0
SOME SORT	949 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0

0<AD<1kBq & MD>0	0	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	None	07:02
ACT_P <5 kBq	592 32.2%		10:15

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 13,390
 2-SEC RECORDS WITH SORTS 1,840 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 433 82.5%
 3 DETECTORS 76 14.5%
 4 DETECTORS 13 2.5%
 5 DETECTORS 3 0.6%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 525
 NET 2-SEC RECORDS WITH SORTS 1,315
 2-SEC PERIODS WITH NO SORTS 12,075
 AVG TIME BETWEEN 2-SEC SORTS 20.4 sec

1-GATE SORTS DETECTR	SORTS	936 FREQ%	ACT_ND (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT FREQ% (#)	ACT_P (kBq)
1	24	2.6%	-14000	0	-261	4000	296 16.1%	4
2	92	9.8%	-12000	0	-224	8000	731 39.7%	8
3	111	11.9%	-10000	1	-187	12000	285 15.5%	12
4	132	14.1%	-8000	0	-149	16000	138 7.5%	16
5	180	19.2%	-6000	1	-112	20000	85 4.6%	20
6	182	19.4%	-4000	0	-75	24000	56 3.0%	24
7	154	16.5%	-2000	2	-37	28000	52 2.8%	28
8	61	6.5%	0	41	0	32000	30 1.6%	32
TOTAL	936		2000	26	37	36000	24 1.3%	36
			4000	64	75	40000	16 0.9%	40
2-GATE SORTS		904	6000	128	112	44000	17 0.9%	44
DETECTR	SORTS	FREQ%	8000	201	149	48000	16 0.9%	48
8			10000	300	187	52000	12 0.7%	52
9	57	6.3%	12000	227	224	56000	14 0.8%	56
10	108	11.9%	14000	174	261	60000	7 0.4%	60
11	122	13.5%	16000	114	299	64000	6 0.3%	64
12	143	15.8%	18000	49	336	68000	3 0.2%	68
13	201	22.2%	20000	15	373	72000	7 0.4%	72
14	148	16.4%	22000	0	410	76000	4 0.2%	76
15	125	13.8%	24000	0	448	80000	3 0.2%	80
TOTAL	904		26000	0	485	84000	5 0.3%	84
			>28000	0	0	>84000	33 1.8%	>84
			TOTAL	1343		TOTAL	1840	

SUMMARY TOTALS

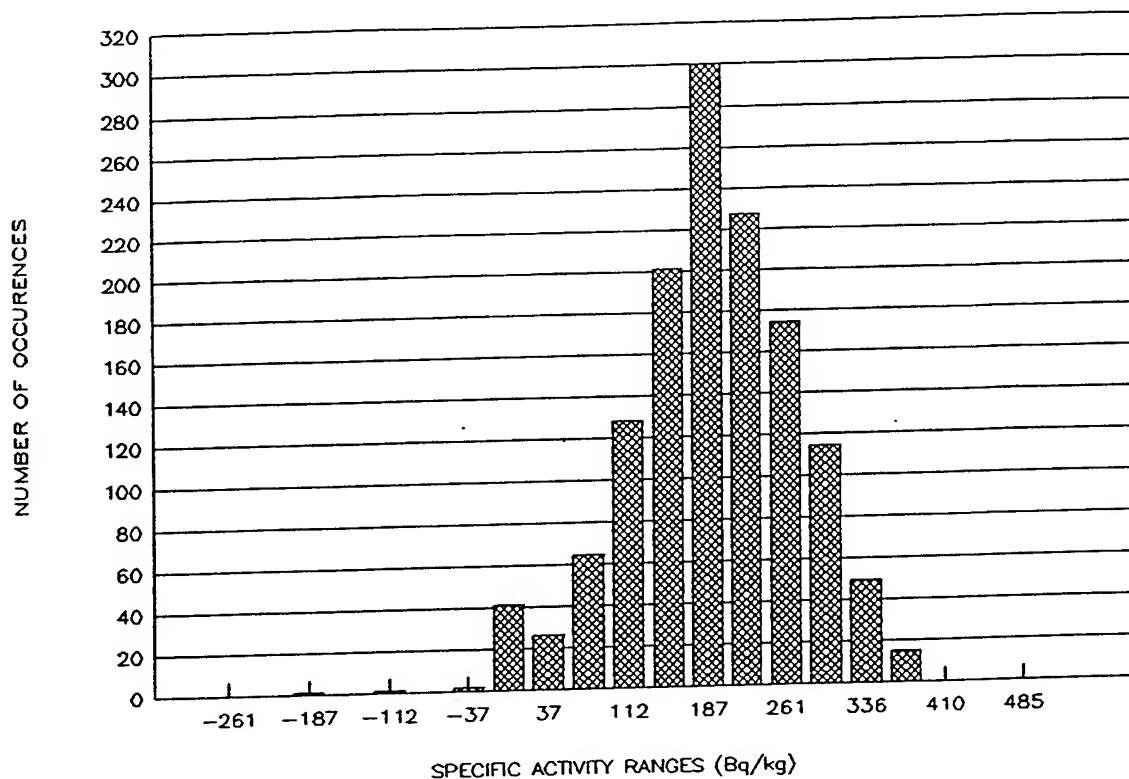
HOT PARTICLE EVENTS	1807	SORTS BY ONE GATE ONLY	936
MULTIPARTICLE EVENTS	1220	SORTS BY TWO GATES	904
DISTRIBUTED EVENTS	2324		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

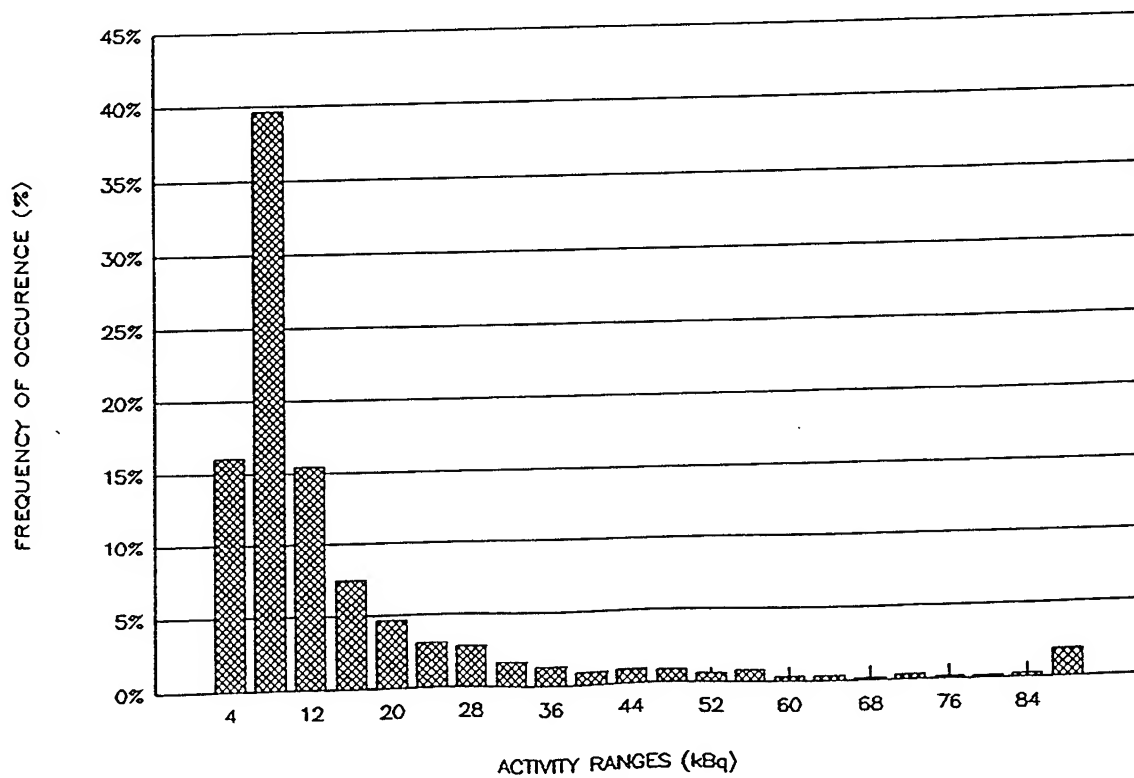
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 19-Jan-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 19-Jan-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 19-Jan-93

AVERAGE BACKGROUND COUNT RATE 0.79 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	3.95 tons	67.8 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	42.8 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		94.5%
EQUIVALENT SOIL-IN-GROUND	3.13 yd ³	53.7 yd ³ 56.9 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	30,272 kBq
MAXIMUM/SORT	785 kBq
MINIMUM/SORT	2.3 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	15,274 kBq	10,170 kBq
MAXIMUM/SORT	513 kBq	19 kBq
MINIMUM/SORT	0 Bq	-12 kBq
SPECIFIC ACTIVITY	3,863 Bq/kg	150 Bq/kg

WORK HISTORY

WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	07:38 AM	END SOIL PROCESSING	05:03 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	10.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	7.44 hr
DOWN-TIME	2.56 hr
TOTAL SYSTEM PAUSE	2.58 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.65 hr
SHUT-DOWN	0.45 hr
PLANT PERFORMANCE	74.4%
PRODUCTIVITY	74.4%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	3,190
NONPROCESS RECORDS (Test, calibration, etc)	3

20-SEC PROCESS RECORDS	1,339		
TOTAL SORT	32 MD>0 & MND=0		
NO SORT	308 AD=0 & MD=0 & MND>0		
SOME SORT	999 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	2	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	13:49:12	07:02
ACT_P <5 kBq	544 29.4%	14:22:52	10:15

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 13,390
 2-SEC RECORDS WITH SORTS 1,851 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 417 78.4%
 3 DETECTORS 93 17.5%
 4 DETECTORS 19 3.6%
 5 DETECTORS 3 0.6%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 532
 NET 2-SEC RECORDS WITH SORTS 1,319
 2-SEC PERIODS WITH NO SORTS 12,071
 AVG TIME BETWEEN 2-SEC SORTS 20.3 sec

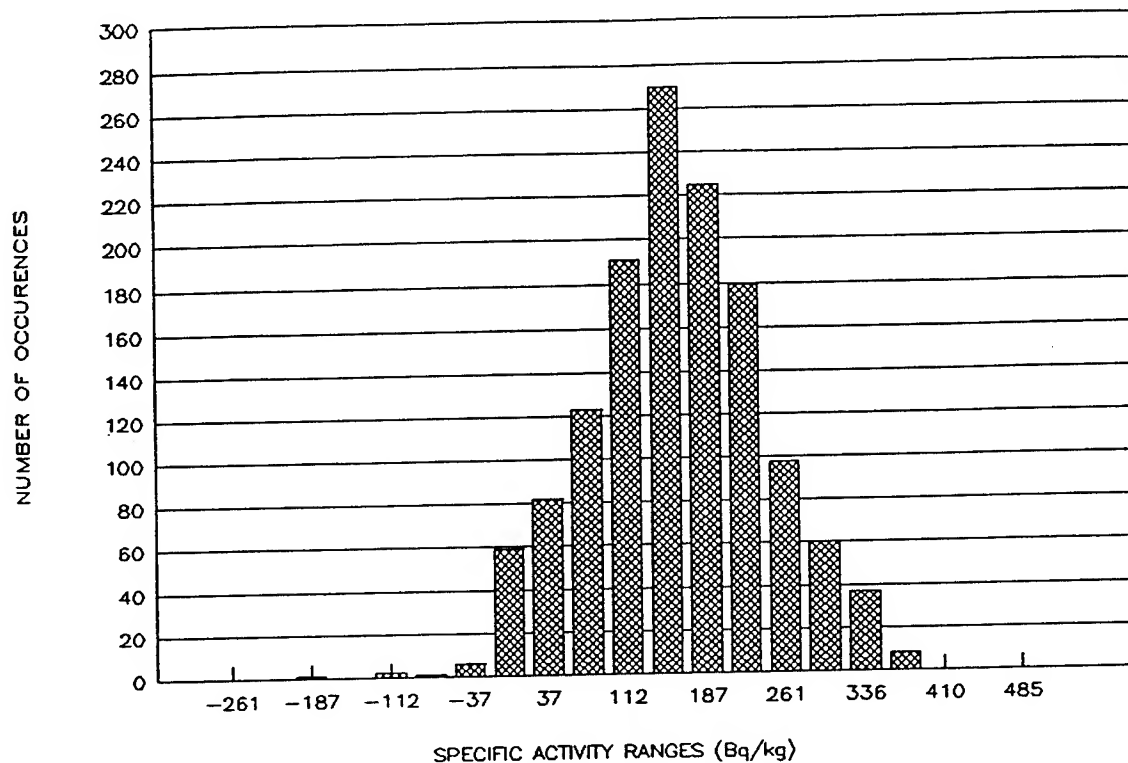
1-GATE SORTS DETECTR	SORTS	927 FREQ%	ACT_ND (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT (#)	FREQ%	ACT_P (kBq)
1	36	3.9%	-14000	0	-261	4000	248	13.4%	4
2	129	13.9%	-12000	0	-224	8000	790	42.7%	8
3	127	13.7%	-10000	1	-187	12000	297	16.0%	12
4	170	18.3%	-8000	0	-149	16000	145	7.8%	16
5	165	17.8%	-6000	2	-112	20000	70	3.8%	20
6	167	18.0%	-4000	1	-75	24000	51	2.8%	24
7	110	11.9%	-2000	6	-37	28000	28	1.5%	28
8	23	2.5%	0	59	0	32000	29	1.6%	32
TOTAL	927		2000	82	37	36000	35	1.9%	36
			4000	123	75	40000	15	0.8%	40
			6000	191	112	44000	12	0.6%	44
2-GATE SORTS		924	8000	270	149	48000	17	0.9%	48
DETECTR	SORTS	FREQ%	10000	225	187	52000	6	0.3%	52
8			12000	179	224	56000	12	0.6%	56
9	87	9.4%	14000	98	261	60000	13	0.7%	60
10	106	11.5%	16000	60	299	64000	5	0.3%	64
11	163	17.6%	18000	37	336	68000	9	0.5%	68
12	172	18.6%	20000	8	373	72000	3	0.2%	72
13	176	19.0%	22000	0	410	76000	7	0.4%	76
14	152	16.5%	24000	0	448	80000	5	0.3%	80
15	68	7.4%	26000	0	485	84000	2	0.1%	84
TOTAL	924		>28000	0	0	>84000	52	2.8%	>84
			TOTAL	1342		TOTAL	1851		
SUMMARY TOTALS									
HOT PARTICLE EVENTS			1821	SORTS BY ONE GATE ONLY			927		
MULTIPARTICLE EVENTS			1700	SORTS BY TWO GATES			924		
DISTRIBUTED EVENTS			2390						

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

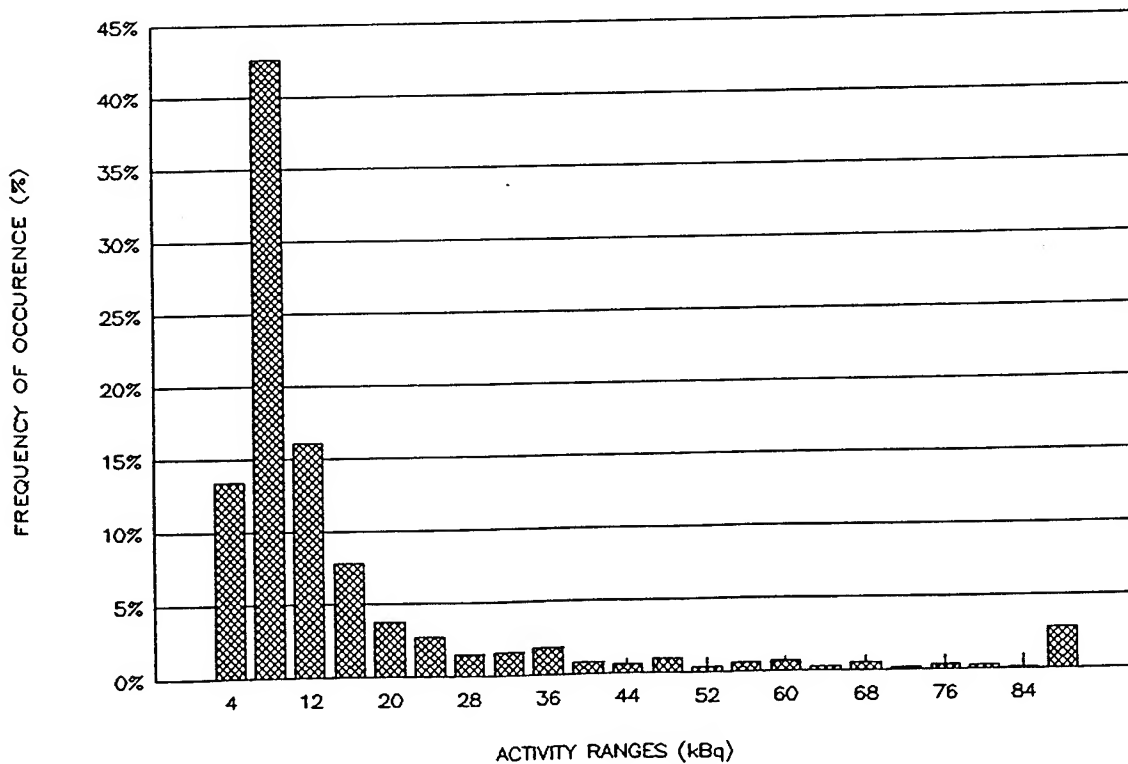
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 19-Jan-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 19-Jan-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 18-Jan-93

AVERAGE BACKGROUND COUNT RATE 0.69 ± 0.03 c/sec

SORTER SOIL DENSITY 1.15 tons/m³

GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.14 tons	35.1 tons
MAXIMUM/SORT	4 kg	53.6 kg
MINIMUM/SORT	0.7 kg	49.5 kg

		99.6%
WEIGHT RECOVERY OR VOLUME RECOVERY		
EQUIVALENT SOIL-IN-GROUND	0.11 yd ³	27.8 yd ³ 28.0 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	1,321 kBq
MAXIMUM/SORT	60 kBq
MINIMUM/SORT	2.3 kBq

		1,153 kBq
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	675 kBq	
MAXIMUM/SORT	48 kBq	18 kBq
MINIMUM/SORT	0 Bq	-7 kBq
SPECIFIC ACTIVITY	4,802 Bq/kg	33 Bq/kg

WORK HISTORY

WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	01:16 PM	END SOIL PROCESSING	04:59 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	10.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	3.66 hr
DOWN-TIME	6.34 hr
TOTAL SYSTEM PAUSE	5.89 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	6.28 hr
SHUT-DOWN	0.50 hr
PLANT PERFORMANCE	36.6%
PRODUCTIVITY	36.6%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 764

NONPROCESS RECORDS (Test, calibration, etc) 24

20-SEC PROCESS RECORDS	658
TOTAL SORT	0 MD>0 & MND=0
NO SORT	527 AD=0 & MD=0 & MND>0
SOME SORT	131 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	0
AD=0 & MD	0
AD<0 & MD	0
ACT_P <5 kBq	28 26.4%

UNEXPLAIN	PAUSE
TIME	TIME
None	07:24
	08:42

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	6,580	08:51
2-SEC RECORDS WITH SORTS	106 (ACT_P >0 kBq)	08:57
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR		09:31
2 DETECTORS	23 88.5%	16:04
3 DETECTORS	3 11.5%	
4 DETECTORS	0 0.0%	
5 DETECTORS	0 0.0%	
6 DETECTORS	0 0.0%	
7 DETECTORS	0 0.0%	
8 DETECTORS	0 0.0%	
TOTAL	26	
NET 2-SEC RECORDS WITH SORTS	80	
2-SEC PERIODS WITH NO SORTS	6,500	
AVG TIME BETWEEN 2-SEC SORTS	164.5 sec	

1-GATE SORTS	56	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	3	5.3%	-14000	0	-261	4000	14	13.1%
2	4	7.0%	-12000	0	-224	8000	43	40.2%
3	9	15.8%	-10000	2	-187	12000	18	16.8%
4	8	14.0%	-8000	0	-149	16000	10	9.3%
5	16	28.1%	-6000	3	-112	20000	5	4.7%
6	8	14.0%	-4000	22	-75	24000	4	3.7%
7	8	14.0%	-2000	45	-37	28000	1	0.9%
8	1	1.8%	0	149	0	32000	2	1.9%
TOTAL	57		2000	175	37	36000	2	1.9%
			4000	141	75	40000	0	0.0%
2-GATE SORTS	50	6000	75	112	44000	0	0.0%	44
DETECTR	SORTS	FREQ%	8000	35	149	48000	1	0.9%
8			10000	17	187	52000	2	1.9%
9	3	6.0%	12000	7	224	56000	2	1.9%
10	5	10.0%	14000	5	261	60000	1	0.9%
11	6	12.0%	16000	1	299	64000	1	0.9%
12	14	28.0%	18000	4	336	68000	0	0.0%
13	11	22.0%	20000	0	373	72000	0	0.0%
14	8	16.0%	22000	0	410	76000	0	0.0%
15	3	6.0%	24000	0	448	80000	0	0.0%
TOTAL	50		26000	0	485	84000	0	0.0%
			>28000	0	0	>84000	1	0.9%
			TOTAL	681		TOTAL	107	

SUMMARY TOTALS

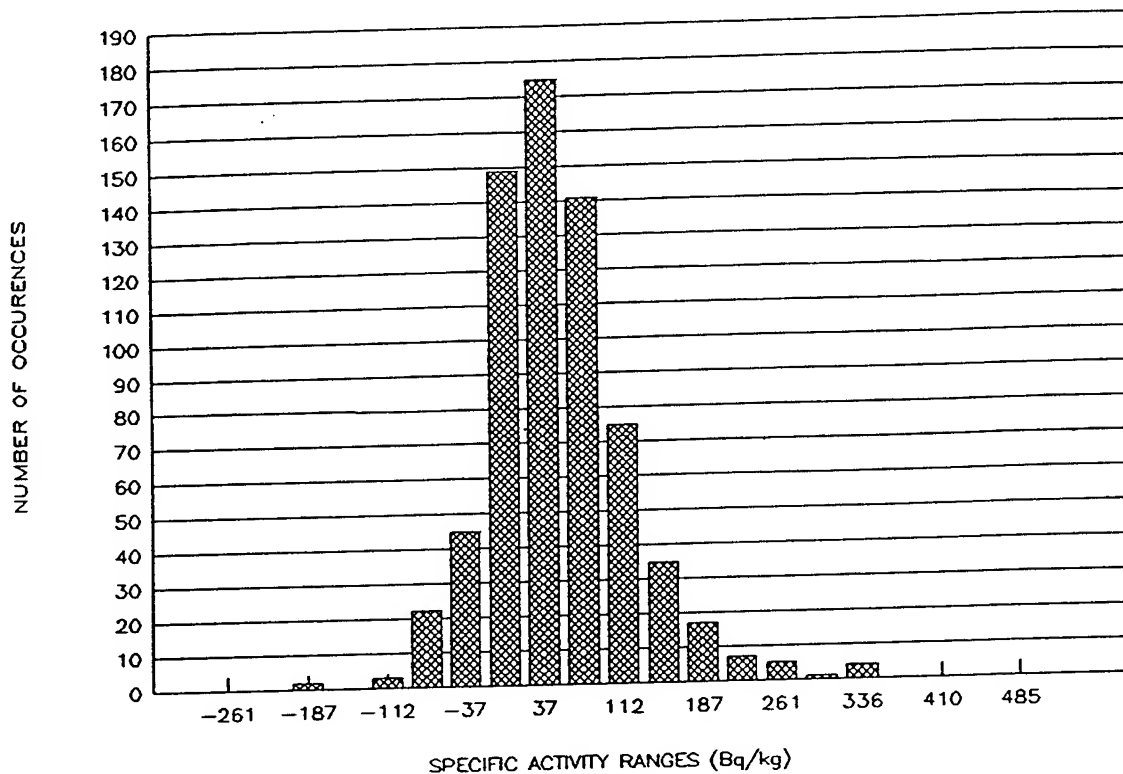
HOT PARTICLE EVENTS	107	SORTS BY ONE GATE ONLY	56
MULTIPARTICLE EVENTS	101	SORTS BY TWO GATES	50
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

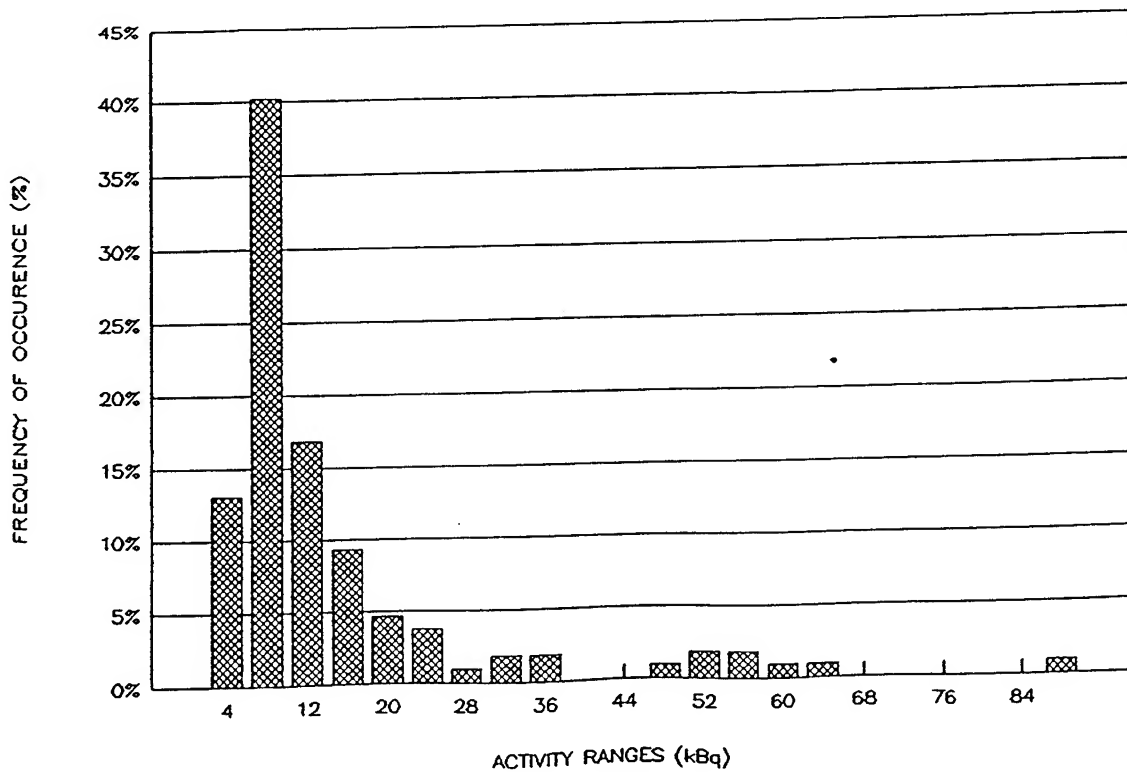
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 18-Jan-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 18-Jan-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 18-Jan-93

AVERAGE BACKGROUND COUNT RATE 0.78 ± 0.03 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN	
MASS TOTAL	0.18 tons	34.7 tons	
MAXIMUM/SORT	4 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	49.5 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.5%
EQUIVALENT SOIL-IN-GROUND	0.14 yd ³	27.5 yd ³	27.7 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	1,431 kBq
MAXIMUM/SORT	65 kBq
MINIMUM/SORT	2.8 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

	809 kBq	1,313 kBq
MAXIMUM/SORT	51 kBq	13 kBq
MINIMUM/SORT	0 Bq	-7 kBq
SPECIFIC ACTIVITY	4,443 Bq/kg	38 Bq/kg

WORK HISTORY

WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	01:16 PM	END SOIL PROCESSING	04:58 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	10.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	3.62 hr
DOWN-TIME	6.38 hr
TOTAL SYSTEM PAUSE	5.92 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	6.28 hr
SHUT-DOWN	0.53 hr
PLANT PERFORMANCE	36.2%
PRODUCTIVITY	36.2%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)

NONPROCESS RECORDS (Test, calibration, etc)

20-SEC PROCESS RECORDS

TOTAL SORT	651
NO SORT	0 MD>0 & MND=0
SOME SORT	484 AD=0 & MD=0 & MND>0
UNEXPLAINED RECORDS	167 AD>0&0<MD<MNDmax&MND<MNDmax
	0

	UNEXPLAIN	PAUSE
	TIME	TIME
0<AD<1kBq & MD>0	None	07:24
AD=0 & MD		08:42
AD<0 & MD		
ACT_P <5 kBq	27	25.0%

JA SOIL CLEANUP PLANT LOG SUMMARY

08:51
08:57
16:03

2-SEC COUNT PERIODS 6,510
2-SEC RECORDS WITH SORTS 108 (ACT_P >0 kBq)
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
2 DETECTORS 27 84.4%
3 DETECTORS 4 12.5%
4 DETECTORS 1 3.1%
5 DETECTORS 0 0.0%
6 DETECTORS 0 0.0%
7 DETECTORS 0 0.0%
8 DETECTORS 0 0.0%
TOTAL 32
NET 2-SEC RECORDS WITH SORTS 76
2-SEC PERIODS WITH NO SORTS 6,434
AVG TIME BETWEEN 2-SEC SORTS 171.3 sec

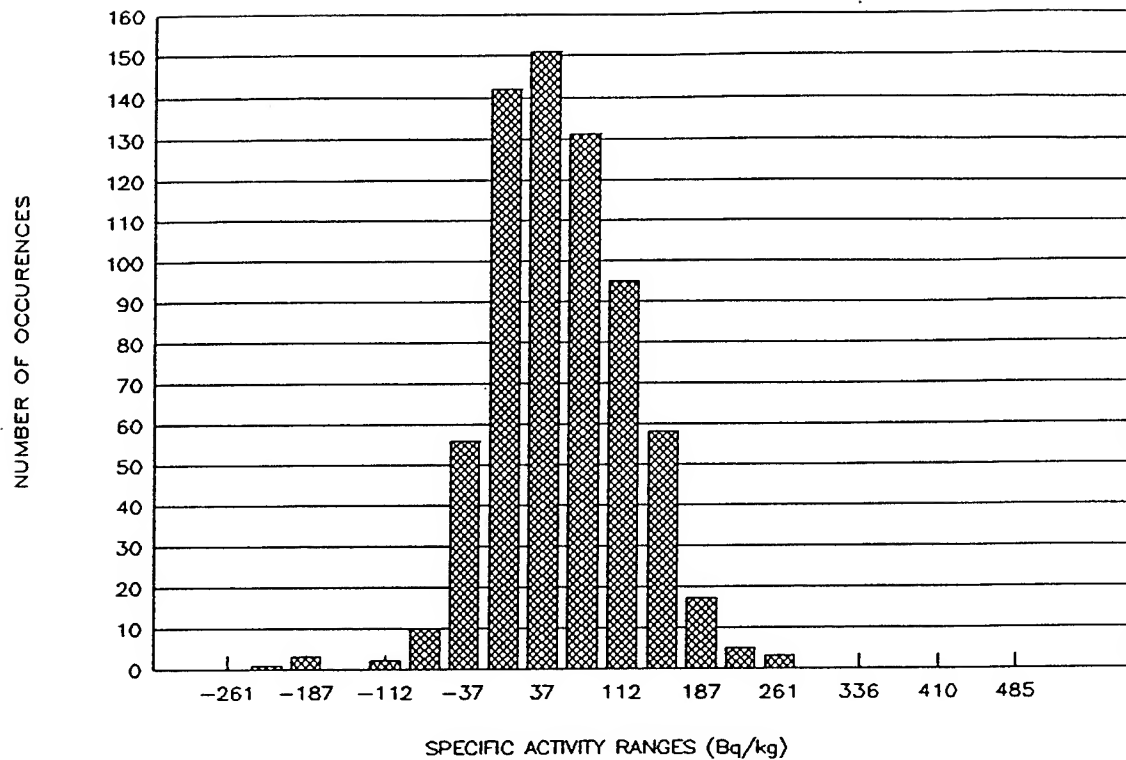
1-GATE SORTS		55	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT FREQ%		ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	1	1.8%	-14000	0	-261	4000	15	13.9%	4
2	9	16.4%	-12000	1	-224	8000	43	39.8%	8
3	9	16.4%	-10000	3	-187	12000	12	11.1%	12
4	8	14.5%	-8000	0	-149	16000	14	13.0%	16
5	11	20.0%	-6000	2	-112	20000	6	5.6%	20
6	12	21.8%	-4000	10	-75	24000	4	3.7%	24
7	4	7.3%	-2000	56	-37	28000	0	0.0%	28
8	1	1.8%	0	142	0	32000	2	1.9%	32
TOTAL	55		2000	151	37	36000	2	1.9%	36
			4000	131	75	40000	1	0.9%	40
			6000	95	112	44000	2	1.9%	44
2-GATE SORTS		53	8000	58	149	48000	2	1.9%	48
DETECTR	SORTS	FREQ%	10000	17	187	52000	1	0.9%	52
8			12000	5	224	56000	0	0.0%	56
9	2	3.8%	14000	3	261	60000	2	1.9%	60
10	9	17.0%	16000	0	299	64000	1	0.9%	64
11	8	15.1%	18000	0	336	68000	1	0.9%	68
12	11	20.8%	20000	0	373	72000	0	0.0%	72
13	14	26.4%	22000	0	410	76000	0	0.0%	76
14	5	9.4%	24000	0	448	80000	0	0.0%	80
15	4	7.5%	26000	0	485	84000	0	0.0%	84
TOTAL	53		>28000	0	0	>84000	0	0.0%	>84
			TOTAL	674		TOTAL	108		
SUMMARY TOTALS									
HOT PARTICLE EVENTS			112	SORTS BY ONE GATE ONLY		55			
MULTIPARTICLE EVENTS			157	SORTS BY TWO GATES		53			
DISTRIBUTED EVENTS			0						

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
2.00 Empty belt
3.00 Test (No process soil)

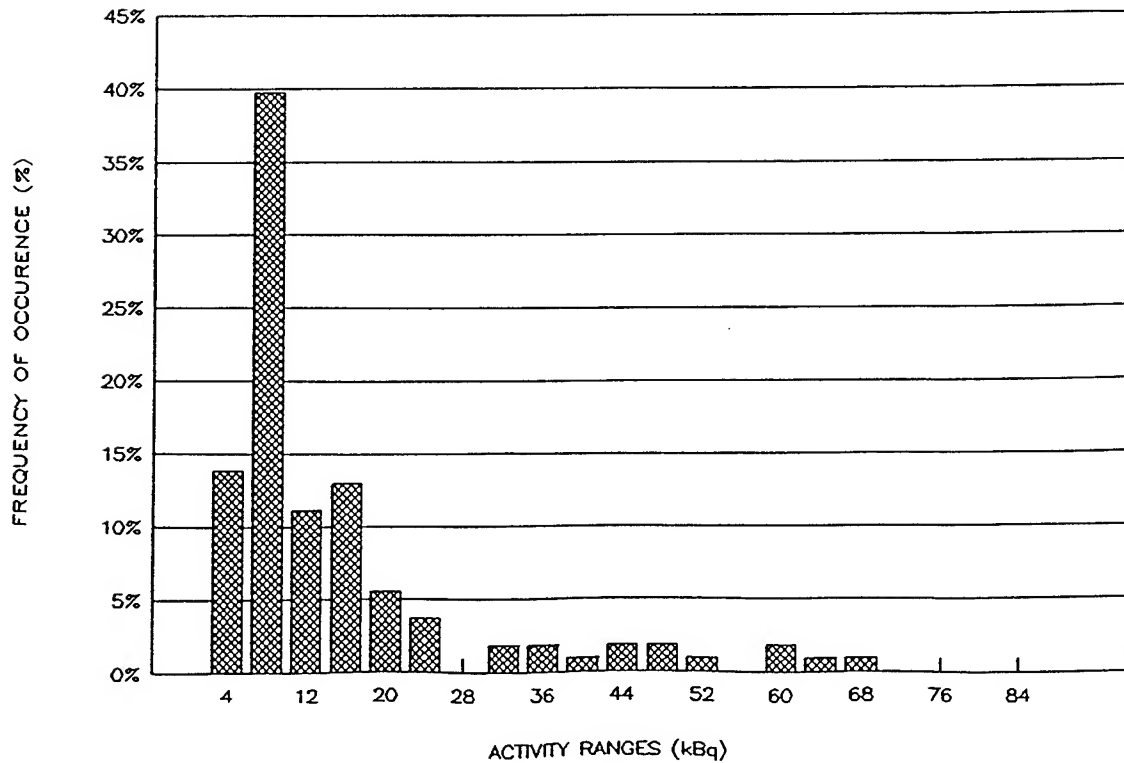
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 18-Jan-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 18-Jan-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 08-Jan-93

AVERAGE BACKGROUND COUNT RATE 0.69 ± 0.03 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.54 tons	56.8 tons
MAXIMUM/SORT	6.7 kg	53.6 kg
MINIMUM/SORT	0.7 kg	46.9 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		99.1%
EQUIVALENT SOIL-IN-GROUND	0.43 yd ³	45.0 yd ³ 45.5 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	7,380 kBq
MAXIMUM/SORT	293 kBq
MINIMUM/SORT	2.4 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	3,301 kBq	4,160 kBq
MAXIMUM/SORT	243 kBq	14 kBq
MINIMUM/SORT	0 Bq	-10 kBq
SPECIFIC ACTIVITY	6,157 Bq/kg	73 Bq/kg

WORK HISTORY		WORK DAY END	05:30 PM
WORK DAY START	07:00 AM	PLANT SHUT-DOWN	05:30 PM
PLANT START-UP	07:00 AM	END SOIL PROCESSING	03:19 PM
START SOIL PROCESSING	08:03 AM	LUNCH PERIOD	0.5 hr
LUNCH START	11:30 AM		

WORK HOURS	10.0 hr
AVAILABLE HOURS	10.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	5.94 hr
DOWN-TIME	4.06 hr
TOTAL SYSTEM PAUSE	1.76 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	1.06 hr
SHUT-DOWN	2.18 hr
PLANT PERFORMANCE	59.4%
PRODUCTIVITY	59.4%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 1,575
 NONPROCESS RECORDS (Test, calibration, etc) 9

20-SEC PROCESS RECORDS

TOTAL SORT	0 MD>0 & MND=0
NO SORT	694 AD=0 & MD=0 & MND>0
SOME SORT	376 AD>0&0<MD<MNDmax&MND<MNDmax

UNEXPLAINED RECORDS

0<AD<1kBq & MD>0	0
AD=0 & MD	0
AD<0 & MD	0

ACT_P <5 kBq	128	25.3%
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UNEXPLAIN	PAUSE
TIME	TIME
None	07:35
	11:07

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 10,700
 2-SEC RECORDS WITH SORTS 505 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	117	82.4%
3 DETECTORS	17	12.0%
4 DETECTORS	7	4.9%
5 DETECTORS	1	0.7%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	142	
NET 2-SEC RECORDS WITH SORTS	363	
2-SEC PERIODS WITH NO SORTS	10,337	
AVG TIME BETWEEN 2-SEC SORTS	59.0 sec	

1-GATE SORTS DETECTR	SORTS	250 FREQ%	ACT_ND (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT FREQ%	ACT_P (kBq)
1	16	6.4%	-14000	0	-261	4000	49 9.7%	4
2	29	11.6%	-12000	1	-224	8000	220 43.6%	8
3	36	14.4%	-10000	3	-187	12000	73 14.5%	12
4	49	19.6%	-8000	2	-149	16000	48 9.5%	16
5	38	15.2%	-6000	3	-112	20000	26 5.1%	20
6	41	16.4%	-4000	4	-75	24000	18 3.6%	24
7	32	12.8%	-2000	8	-37	28000	10 2.0%	28
8	9	3.6%	0	85	0	32000	9 1.8%	32
TOTAL	250		2000	190	37	36000	9 1.8%	36
			4000	277	75	40000	5 1.0%	40
2-GATE SORTS		255	6000	256	112	44000	3 0.6%	44
DETECTR	SORTS	FREQ%	8000	152	149	48000	9 1.8%	48
8			10000	70	187	52000	5 1.0%	52
9	24	9.4%	12000	21	224	56000	5 1.0%	56
10	34	13.3%	14000	6	261	60000	2 0.4%	60
11	48	18.8%	16000	1	299	64000	1 0.2%	64
12	44	17.3%	18000	0	336	68000	2 0.4%	68
13	42	16.5%	20000	0	373	72000	1 0.2%	72
14	43	16.9%	22000	0	410	76000	2 0.4%	76
15	20	7.8%	24000	0	448	80000	1 0.2%	80
TOTAL	255		26000	0	485	84000	0 0.0%	84
			>28000	0	0	>84000	7 1.4%	>84
			TOTAL	1079		TOTAL	505	

SUMMARY TOTALS

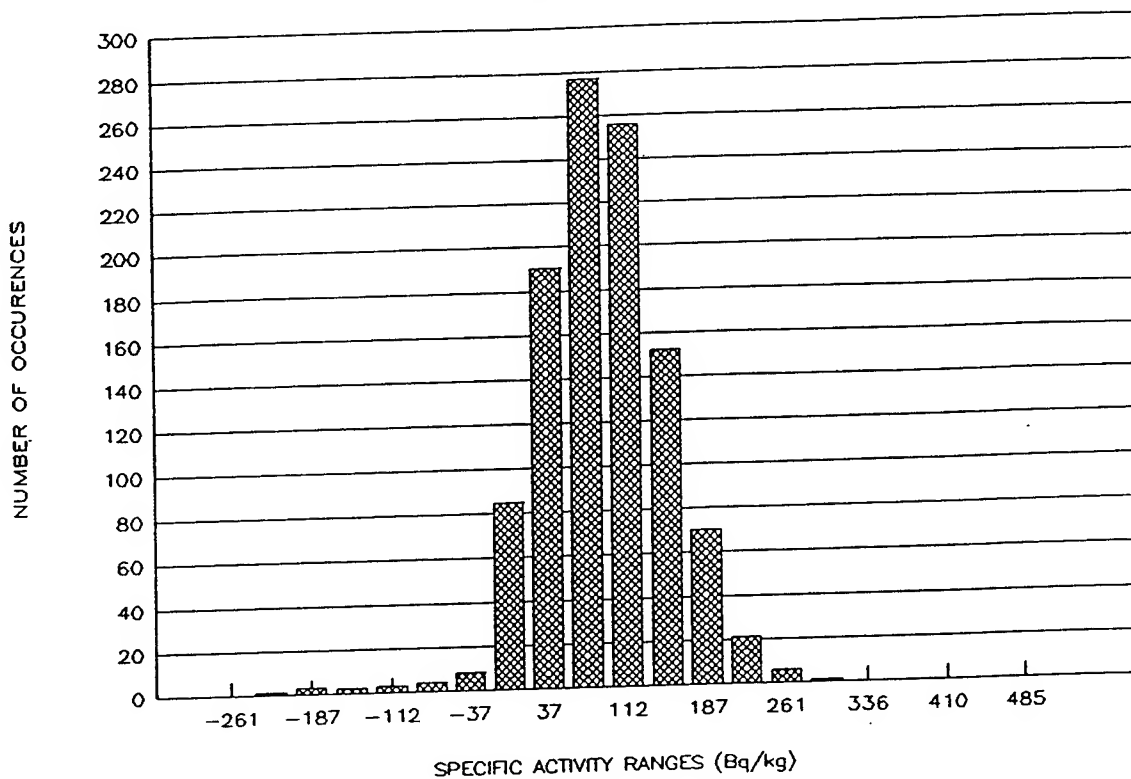
HOT PARTICLE EVENTS	493	SORTS BY ONE GATE ONLY	250
MULTIPARTICLE EVENTS	308	SORTS BY TWO GATES	255
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

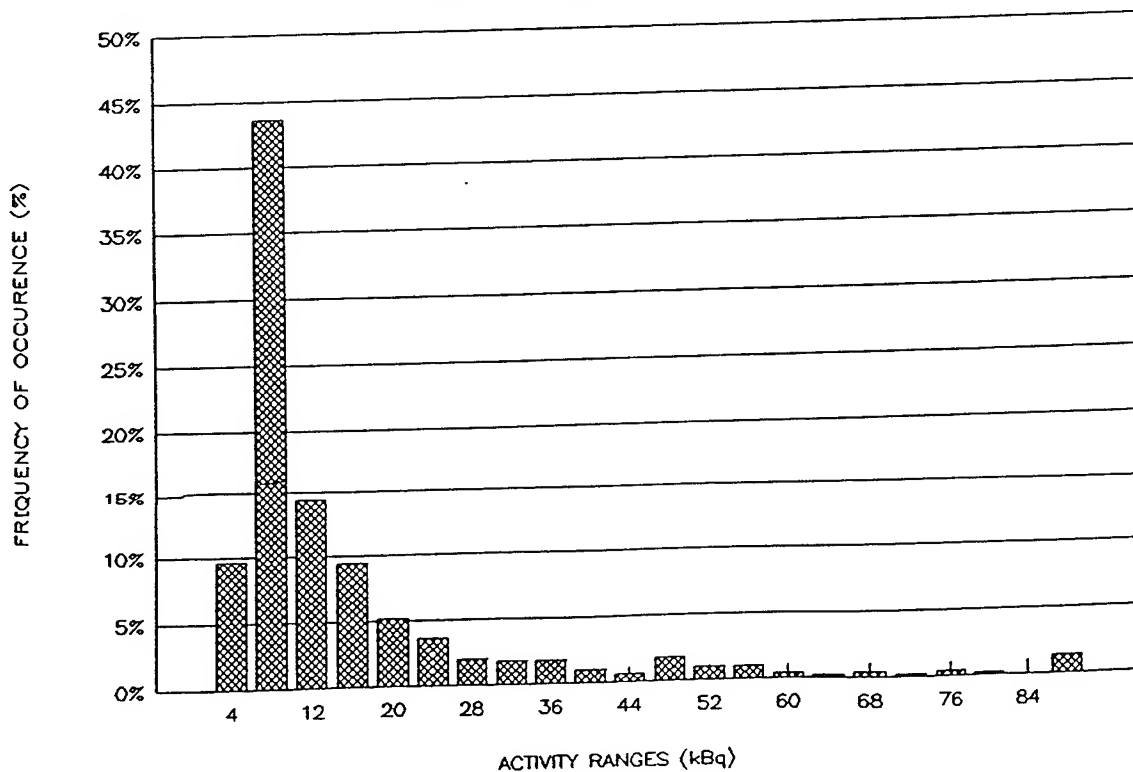
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 08-Jan-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 08-Jan-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 08-Jan-93

AVERAGE BACKGROUND COUNT RATE 0.78 ± 0.04 c/sec

SORTER SOIL DENSITY 1.15 tons/m³

GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.54 tons	57.0 tons
MAXIMUM/SORT	6.7 kg	53.6 kg
MINIMUM/SORT	0.7 kg	46.9 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		99.1%
EQUIVALENT SOIL-IN-GROUND	0.43 yd ³	45.2 yd ³ 45.6 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	8,593 kBq
MAXIMUM/SORT	509 kBq
MINIMUM/SORT	2.7 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

	3,848 kBq	429 kBq
MAXIMUM/SORT	408 kBq	15 kBq
MINIMUM/SORT	0 Bq	-12 kBq
SPECIFIC ACTIVITY	7,120 Bq/kg	8 Bq/kg

WORK HISTORY

WORK DAY START	07:00 AM
PLANT START-UP	07:00 AM
START SOIL PROCESSING	08:03 AM
LUNCH START	11:30 AM

WORK DAY END	05:30 PM
PLANT SHUT-DOWN	05:30 PM
END SOIL PROCESSING	03:19 PM
LUNCH PERIOD	0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	10.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	5.96 hr
DOWN-TIME	4.04 hr
TOTAL SYSTEM PAUSE	1.76 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	1.06 hr
SHUT-DOWN	2.18 hr
PLANT PERFORMANCE	59.6%
PRODUCTIVITY	59.6%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 1,576

NONPROCESS RECORDS (Test, calibration, etc) 6

20-SEC PROCESS RECORDS

TOTAL SORT	1,073	0 MD>0 & MND=0
NO SORT		672 AD=0 & MD=0 & MND>0
SOME SORT		401 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0	
0<AD<1kBq & MD>0	2	UNEXPLAIN
AD=0 & MD	0	TIME
AD<0 & MD	0	10:57:32
ACT_P <5 kBq	115	13:37:52
	22.9%	11:07

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 10,730
 2-SEC RECORDS WITH SORTS 503 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 118 77.6%
 3 DETECTORS 29 19.1%
 4 DETECTORS 5 3.3%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 152
 NET 2-SEC RECORDS WITH SORTS 351
 2-SEC PERIODS WITH NO SORTS 10,379
 AVG TIME BETWEEN 2-SEC SORTS 61.1 sec

1-GATE SORTS		258	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT FREQ%		ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	10	3.9%	-14000	1	-261	4000	44	8.7%	4
2	35	13.6%	-12000	0	-224	8000	218	43.3%	8
3	39	15.1%	-10000	2	-187	12000	80	15.9%	12
4	45	17.4%	-8000	6	-149	16000	52	10.3%	16
5	55	21.3%	-6000	42	-112	20000	27	5.4%	20
6	37	14.3%	-4000	106	-75	24000	18	3.6%	24
7	31	12.0%	-2000	147	-37	28000	8	1.6%	28
8	6	2.3%	0	213	0	32000	8	1.6%	32
TOTAL	258		2000	224	37	36000	5	1.0%	36
			4000	138	75	40000	5	1.0%	40
			6000	105	112	44000	3	0.6%	44
2-GATE SORTS		245	8000	61	149	48000	6	1.2%	48
DETECTR	SORTS	FREQ%				52000	7	1.4%	52
8			10000	20	187	56000	4	0.8%	56
9	24	9.8%	12000	7	224	60000	2	0.4%	60
10	39	15.9%	14000	4	261	64000	0	0.0%	64
11	38	15.5%	16000	3	299	68000	5	1.0%	68
12	43	17.6%	18000	0	336	72000	0	0.0%	72
13	49	20.0%	20000	0	373	76000	0	0.0%	76
14	28	11.4%	22000	0	410	80000	0	0.0%	80
15	24	9.8%	24000	0	448	84000	0	0.0%	84
TOTAL	245		26000	0	485	>84000	11	2.2%	>84
			>28000	0	0	TOTAL	503		
			TOTAL	1079					

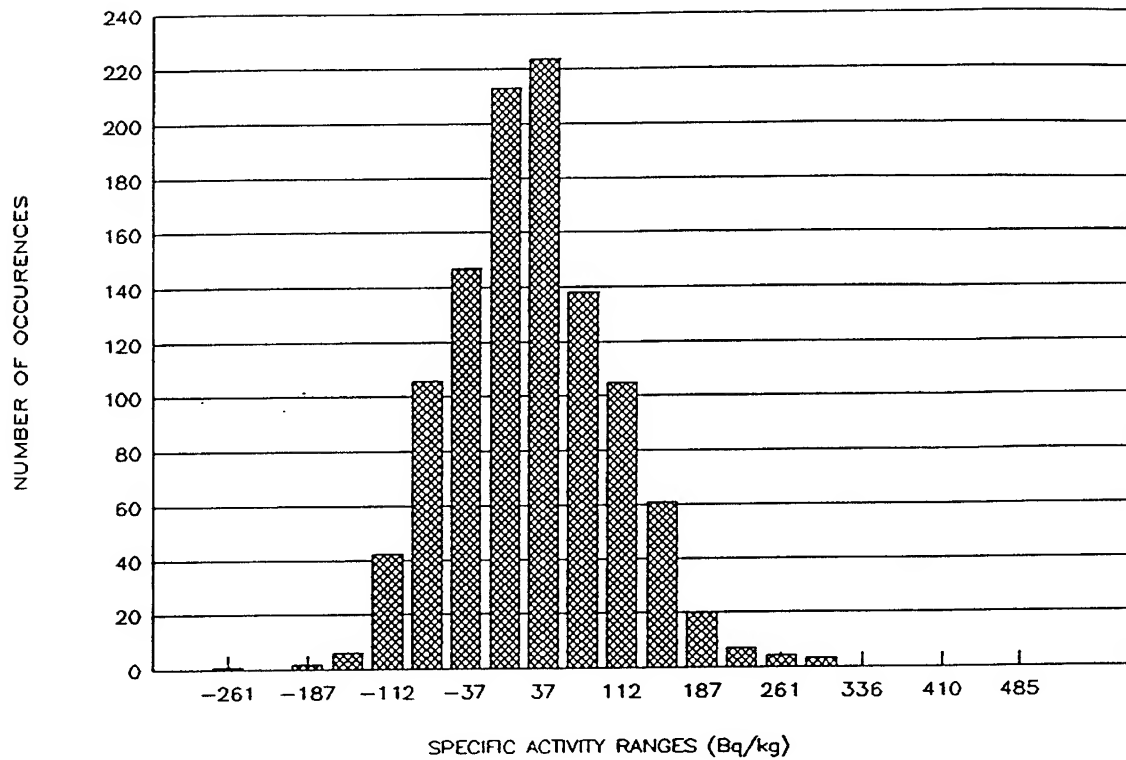
SUMMARY TOTALS

HOT PARTICLE EVENTS	486	SORTS BY ONE GATE ONLY	258
MULTIPARTICLE EVENTS	320	SORTS BY TWO GATES	245
DISTRIBUTED EVENTS	0		

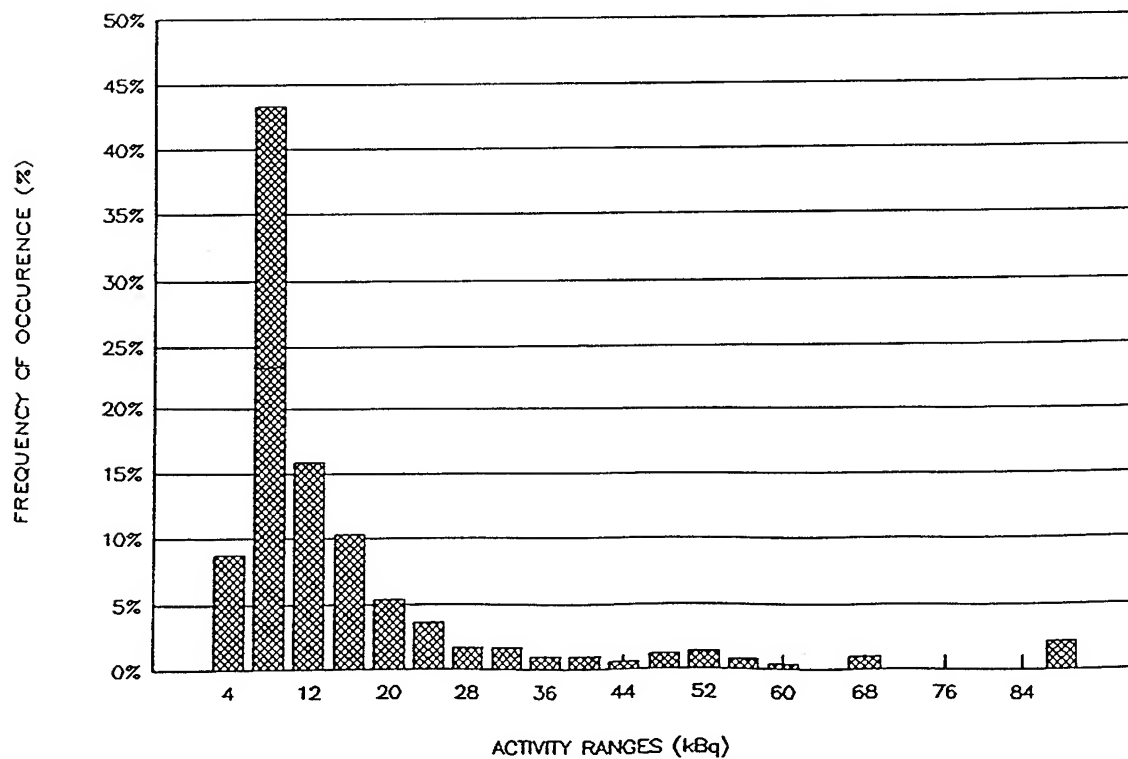
REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

SORTER 2 LOG DATA FOR 08-Jan-93



SORTER 2 LOG DATA FOR 08-Jan-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 07-Jan-93

AVERAGE BACKGROUND COUNT RATE	0.70 ± 0.04 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	0.55 tons	75.5 tons	
MAXIMUM/SORT	5.4 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	48.2 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.3%
EQUIVALENT SOIL-IN-GROUND	0.43 yd ³	59.9 yd ³	60.3 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	10,161 kBq
MAXIMUM/SORT	1,456 kBq
MINIMUM/SORT	3.0 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

MAXIMUM/SORT	4,498 kBq	5,056 kBq
MINIMUM/SORT	1056 kBq	15 kBq
SPECIFIC ACTIVITY	0 Bq	-8 kBq
	8,202 Bq/kg	67 Bq/kg

WORK HISTORY

WORK DAY START	07:00 AM
PLANT START-UP	07:00 AM
START SOIL PROCESSING	08:07 AM
LUNCH START	11:30 AM

WORK DAY END	05:30 PM
PLANT SHUT-DOWN	05:30 PM
END SOIL PROCESSING	05:01 PM
LUNCH PERIOD	0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	10.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	7.89 hr
DOWN-TIME	2.11 hr
TOTAL SYSTEM PAUSE	1.80 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	1.13 hr
SHUT-DOWN	0.47 hr
PLANT PERFORMANCE	78.9%
PRODUCTIVITY	78.9%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 1,919

NONPROCESS RECORDS (Test, calibration, etc) 9

20-SEC PROCESS RECORDS

TOTAL SORT	1,420	0 MD>0 & MND=0
NO SORT	1,000	AD=0 & MD=0 & MND>0
SOME SORT	420	AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0	
0<AD<1kBq & MD>0	1	UNEXPLAIN PAUSE
AD=0 & MD	0	TIME TIME
AD<0 & MD	0	15:26:47 07:20
ACT_P <5 kBq	141	28.3% 11:08

JA SOIL CLEANUP PLANT LOG SUMMARY

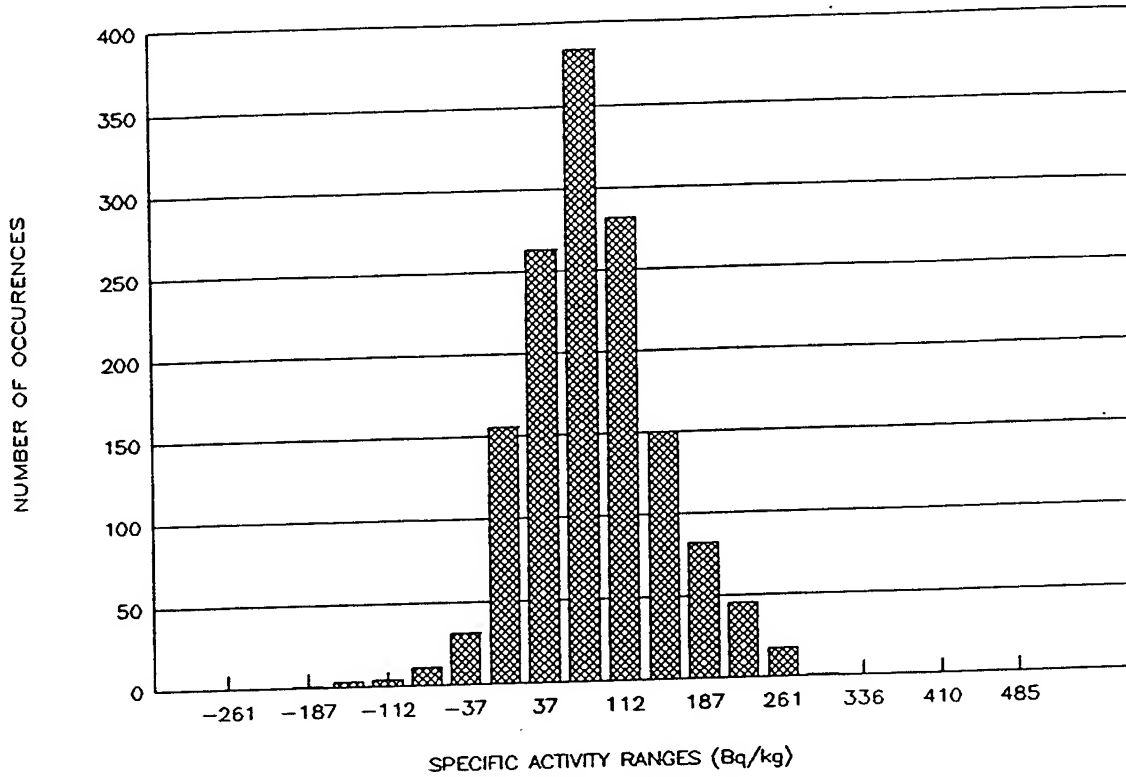
2-SEC COUNT PERIODS 14,200
 2-SEC RECORDS WITH SORTS 499 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 115 83.9%
 3 DETECTORS 16 11.7%
 4 DETECTORS 5 3.6%
 5 DETECTORS 1 0.7%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 137
 NET 2-SEC RECORDS WITH SORTS 362
 2-SEC PERIODS WITH NO SORTS 13,838
 AVG TIME BETWEEN 2-SEC SORTS 78.5 sec

1-GATE SORTS		246	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	9	3.7%	-14000	0	-261	4000	51	10.2%	4
2	26	10.6%	-12000	0	-224	8000	227	45.5%	8
3	55	22.4%	-10000	1	-187	12000	82	16.4%	12
4	37	15.0%	-8000	3	-149	16000	44	8.8%	16
5	43	17.5%	-6000	4	-112	20000	22	4.4%	20
6	31	12.6%	-4000	11	-75	24000	8	1.6%	24
7	29	11.8%	-2000	31	-37	28000	8	1.6%	28
8	16	6.5%	0	155	0	32000	4	0.8%	32
TOTAL	246		2000	263	37	36000	8	1.6%	36
			4000	384	75	40000	7	1.4%	40
2-GATE SORTS		253	6000	282	112	44000	2	0.4%	44
DETECTR	SORTS	FREQ%	8000	150	149	48000	8	1.6%	48
8			10000	82	187	52000	6	1.2%	52
9	16	6.3%	12000	45	224	56000	4	0.8%	56
10	48	19.0%	14000	17	261	60000	1	0.2%	60
11	43	17.0%	16000	1	299	64000	3	0.6%	64
12	49	19.4%	18000	0	336	68000	2	0.4%	68
13	39	15.4%	20000	0	373	72000	1	0.2%	72
14	26	10.3%	22000	0	410	76000	0	0.0%	76
15	32	12.6%	24000	0	448	80000	0	0.0%	80
TOTAL	253		26000	0	485	84000	0	0.0%	84
			>28000	0	0	>84000	11	2.2%	>84
			TOTAL	1429		TOTAL	499		
SUMMARY TOTALS									
HOT PARTICLE EVENTS			503	SORTS BY ONE GATE ONLY			246		
MULTIPARTICLE EVENTS			316	SORTS BY TWO GATES			253		
DISTRIBUTED EVENTS			0						

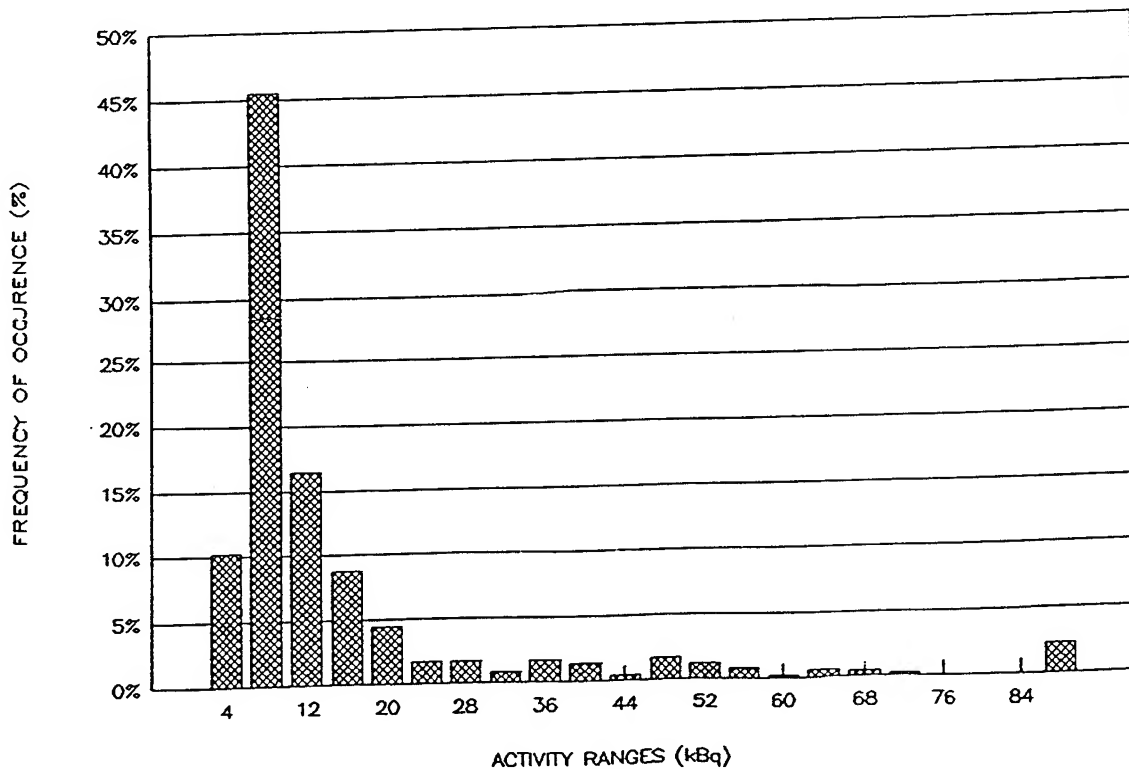
REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

CLEAN SOIL SPECIFIC ACTIVITY SORTER 1 LOG DATA FOR 07-Jan-93



JA SOIL CLEANUP PLANT HOT PARTICLES SORTER 1 LOG DATA FOR 07-Jan-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 07-Jan-93

AVERAGE BACKGROUND COUNT RATE	0.76 ± 0.06 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		0.38 tons	52.4 tons
MAXIMUM/SORT		4 kg	53.6 kg
MINIMUM/SORT		0.7 kg	49.5 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			99.3%
EQUIVALENT SOIL-IN-GROUND	0.30 yd ³	41.5 yd ³	41.8 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	6,080 kBq		
MAXIMUM/SORT	327 kBq		
MINIMUM/SORT	2.8 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	2,749 kBq	9 kBq	
MAXIMUM/SORT	230 kBq	16 kBq	
MINIMUM/SORT	0 Bq	-15 kBq	
SPECIFIC ACTIVITY	7,297 Bq/kg	0 Bq/kg	
WORK HISTORY			
WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	08:07 AM	END SOIL PROCESSING	05:01 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr
WORK HOURS	10.0 hr		
AVAILABLE HOURS	10.0 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	5.47 hr		
DOWN-TIME	4.53 hr		
TOTAL SYSTEM PAUSE	4.20 hr		
NONAVAILABLE HOURS	0.0 hr		
START-UP	1.13 hr		
SHUT-DOWN	0.48 hr		
PLANT PERFORMANCE	54.7%		
PRODUCTIVITY	54.7%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	1,308		
NONPROCESS RECORDS (Test, calibration, etc)	12		
20-SEC PROCESS RECORDS	985		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	690 AD=0 & MD=0 & MND>0		
SOME SORT	295 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	0	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	None	07:20
ACT_P <5 kBq	71 22.0%		11:08

JA SOIL CLEANUP PLANT LOG SUMMARY

13:58

2-SEC COUNT PERIODS 9,850
 2-SEC RECORDS WITH SORTS 323 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 72 81.8%
 3 DETECTORS 14 15.9%
 4 DETECTORS 2 2.3%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 88
 NET 2-SEC RECORDS WITH SORTS 235
 2-SEC PERIODS WITH NO SORTS 9,615
 AVG TIME BETWEEN 2-SEC SORTS 83.8 sec

1-GATE SORTS	156	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(#)	(kBq)
1	11	7.1%	-14000	4	-261	4000	24 7.4%
2	20	12.8%	-12000	4	-224	8000	134 41.5%
3	20	12.8%	-10000	0	-187	12000	49 15.2%
4	35	22.4%	-8000	11	-149	16000	32 9.9%
5	25	16.0%	-6000	54	-112	20000	19 5.9%
6	25	16.0%	-4000	105	-75	24000	13 4.0%
7	16	10.3%	-2000	189	-37	28000	10 3.1%
8	4	2.6%	0	198	0	32000	4 1.2%
TOTAL	156		2000	152	37	36000	4 1.2%
			4000	96	75	40000	2 0.6%
2-GATE SORTS	167		6000	86	112	44000	2 0.6%
DETECTR	SORTS	FREQ%	8000	44	149	48000	5 1.5%
8			10000	26	187	52000	3 0.9%
9	17	10.2%	12000	15	224	56000	2 0.6%
10	14	8.4%	14000	8	261	60000	3 0.9%
11	32	19.2%	16000	5	299	64000	2 0.6%
12	34	20.4%	18000	0	336	68000	3 0.9%
13	29	17.4%	20000	0	373	72000	0 0.0%
14	29	17.4%	22000	0	410	76000	0 0.0%
15	12	7.2%	24000	0	448	80000	1 0.3%
TOTAL	167		26000	0	485	84000	0 0.0%
			>28000	0	0	>84000	11 3.4%
			TOTAL	997		TOTAL	323

SUMMARY TOTALS

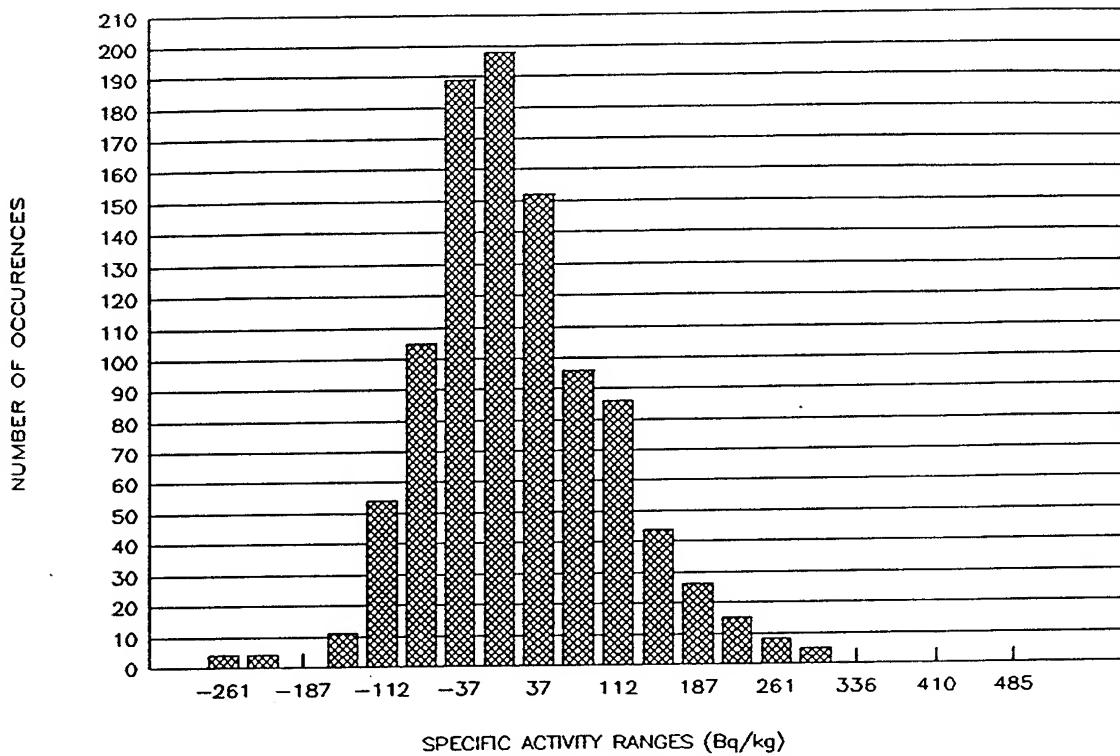
HOT PARTICLE EVENTS	326	SORTS BY ONE GATE ONLY	156
MULTIPARTICLE EVENTS	236	SORTS BY TWO GATES	167
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

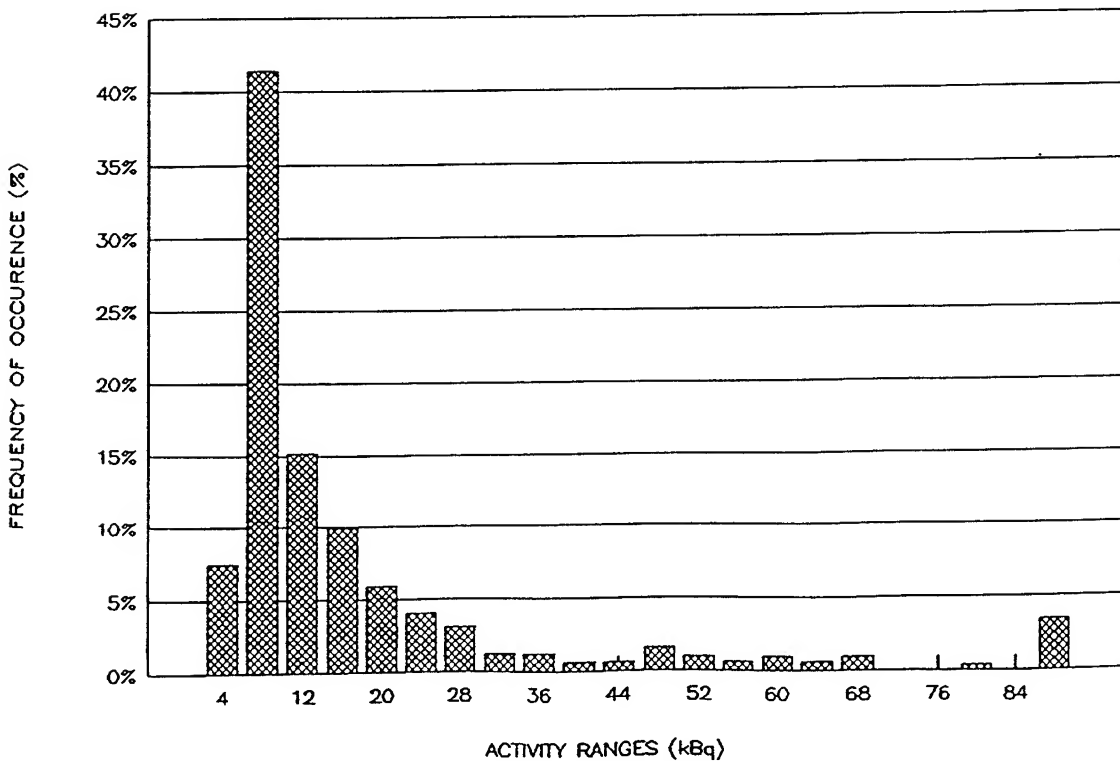
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 07-Jan-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 07-Jan-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 06-Jan-93

AVERAGE BACKGROUND COUNT RATE	0.70 ± 0.03 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	0.87 tons	64.1 tons	
MAXIMUM/SORT	11.4 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	42.2 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			98.7%
EQUIVALENT SOIL-IN-GROUND	0.69 yd ³	50.8 yd ³	51.5 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	14,142 kBq		
MAXIMUM/SORT	854 kBq		
MINIMUM/SORT	2.7 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	6,049 kBq	5,775 kBq	
MINIMUM/SORT	525 kBq	18 kBq	
SPECIFIC ACTIVITY	0 Bq	-10 kBq	
	6,955 Bq/kg	90 Bq/kg	
WORK HISTORY			
WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	07:55 AM	END SOIL PROCESSING	03:57 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr
WORK HOURS	10.0 hr		
AVAILABLE HOURS	10.0 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	6.74 hr		
DOWN-TIME	3.26 hr		
TOTAL SYSTEM PAUSE	1.97 hr		
NONAVAILABLE HOURS	0.0 hr		
START-UP	0.93 hr		
SHUT-DOWN	1.54 hr		
PLANT PERFORMANCE	67.4%		
PRODUCTIVITY	67.4%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,036		
NONPROCESS RECORDS (Test, calibration, etc)	5		
20-SEC PROCESS RECORDS	1,213		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	664 AD=0 & MD=0 & MND>0		
SOME SORT	547 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	2		
0<AD<1kBq & MD>0	0	UNEXPLAIN	PAUSE
AD=0 & MD	1	TIME	TIME
AD<0 & MD	0	10:47:35	07:16
ACT_P <5 kBq	238 28.9%		09:59

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 12,130
 2-SEC RECORDS WITH SORTS 823 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 187 79.2%
 3 DETECTORS 42 17.8%
 4 DETECTORS 6 2.5%
 5 DETECTORS 1 0.4%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 236
 NET 2-SEC RECORDS WITH SORTS 587
 2-SEC PERIODS WITH NO SORTS 11,543
 AVG TIME BETWEEN 2-SEC SORTS 41.3 sec

10:07

11:09

1-GATE SORTS DETECTR	SORTS	411 FREQ%	ACT_ND (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT FREQ (#)	ACT_P (kBq)
1	16	3.9%	-14000	0	-261	4000	109 13.2%	4
2	57	13.9%	-12000	0	-224	8000	350 42.5%	8
3	62	15.1%	-10000	1	-187	12000	123 14.9%	12
4	63	15.3%	-8000	3	-149	16000	59 7.2%	16
5	75	18.2%	-6000	3	-112	20000	44 5.3%	20
6	70	17.0%	-4000	6	-75	24000	23 2.8%	24
7	57	13.9%	-2000	19	-37	28000	26 3.2%	28
8	11	2.7%	0	51	0	32000	5 0.6%	32
TOTAL	411		2000	152	37	36000	7 0.9%	36
			4000	267	75	40000	9 1.1%	40
2-GATE SORTS		412	6000	300	112	44000	10 1.2%	44
DETECTR	SORTS	FREQ%	8000	227	149	48000	6 0.7%	48
8			10000	111	187	52000	4 0.5%	52
9	40	9.7%	12000	54	224	56000	6 0.7%	56
10	62	15.0%	14000	15	261	60000	4 0.5%	60
11	62	15.0%	16000	6	299	64000	4 0.5%	64
12	64	15.5%	18000	3	336	68000	1 0.1%	68
13	78	18.9%	20000	0	373	72000	6 0.7%	72
14	74	18.0%	22000	0	410	76000	3 0.4%	76
15	32	7.8%	24000	0	448	80000	4 0.5%	80
TOTAL	412		26000	0	485	84000	0 0.0%	84
			>28000	0	0	>84000	20 2.4%	>84
			TOTAL	1218		TOTAL	823	

SUMMARY TOTALS

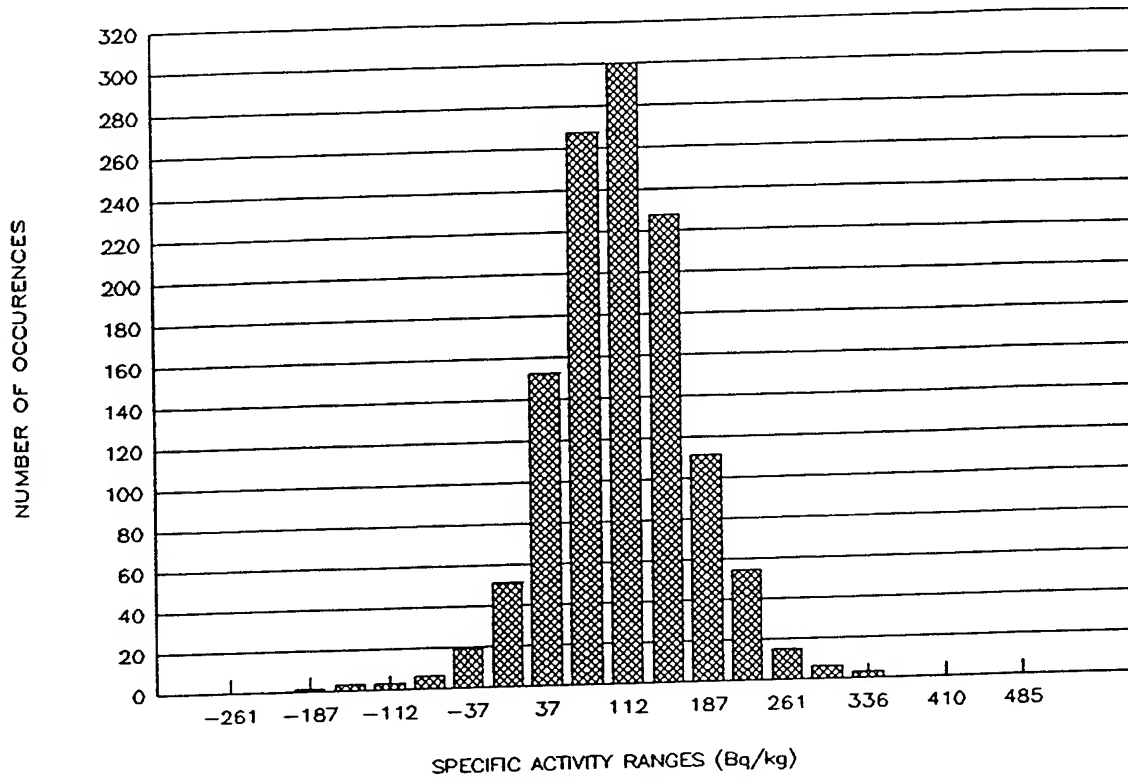
HOT PARTICLE EVENTS	809	SORTS BY ONE GATE ONLY	411
MULTIPARTICLE EVENTS	493	SORTS BY TWO GATES	412
DISTRIBUTED EVENTS	78		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

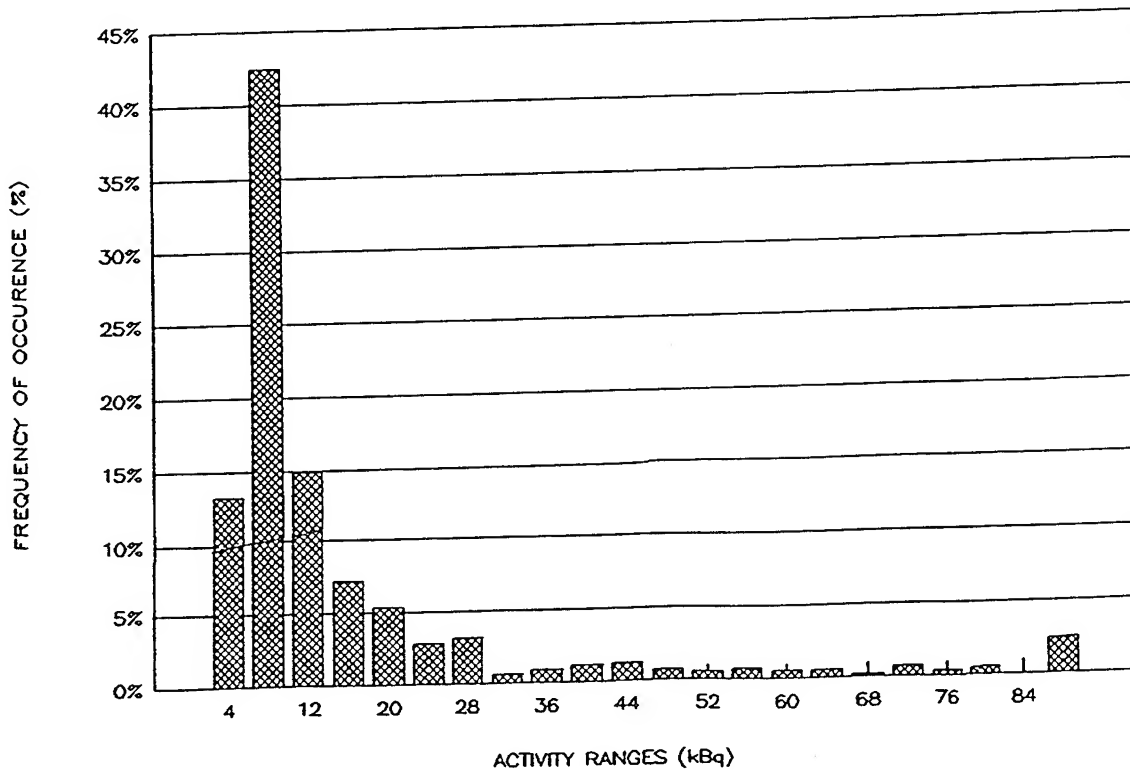
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 06-Jan-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 06-Jan-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 06-Jan-93

AVERAGE BACKGROUND COUNT RATE 0.79 ± 0.02 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.81 tons	64.1 tons
MAXIMUM/SORT	8.7 kg	53.6 kg
MINIMUM/SORT	0.7 kg	44.9 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		98.8%
EQUIVALENT SOIL-IN-GROUND	0.64 yd³	50.8 yd³ 51.5 yd³/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	12,350 kBq
MAXIMUM/SORT	1,047 kBq
MINIMUM/SORT	2.8 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	5,637 kBq	186 kBq
MAXIMUM/SORT	825 kBq	11 kBq
MINIMUM/SORT	0 Bq	-19 kBq
SPECIFIC ACTIVITY	6,999 Bq/kg	3 Bq/kg

WORK HISTORY

WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	07:55 AM	END SOIL PROCESSING	03:56 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	10.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	6.73 hr
DOWN-TIME	3.27 hr
TOTAL SYSTEM PAUSE	1.97 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.93 hr
SHUT-DOWN	1.55 hr
PLANT PERFORMANCE	67.3%
PRODUCTIVITY	67.3%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 1,973
 NONPROCESS RECORDS (Test, calibration, etc) 6

20-SEC PROCESS RECORDS	1,212
TOTAL SORT	0 MD>0 & MND=0
NO SORT	696 AD=0 & MD=0 & MND>0
SOME SORT	516 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	1
AD=0 & MD	0
AD<0 & MD	0
ACT_P <5 kBq	172 22.6%

UNEXPLAIN	PAUSE
TIME	TIME
09:37:56	07:16
	09:59

JA SOIL CLEANUP PLANT LOG SUMMARY

10:07

11:09

2-SEC COUNT PERIODS 12,120
 2-SEC RECORDS WITH SORTS 761 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 183 79.9%
 3 DETECTORS 36 15.7%
 4 DETECTORS 8 3.5%
 5 DETECTORS 2 0.9%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 229
 NET 2-SEC RECORDS WITH SORTS 532
 2-SEC PERIODS WITH NO SORTS 11,588
 AVG TIME BETWEEN 2-SEC SORTS 45.6 sec

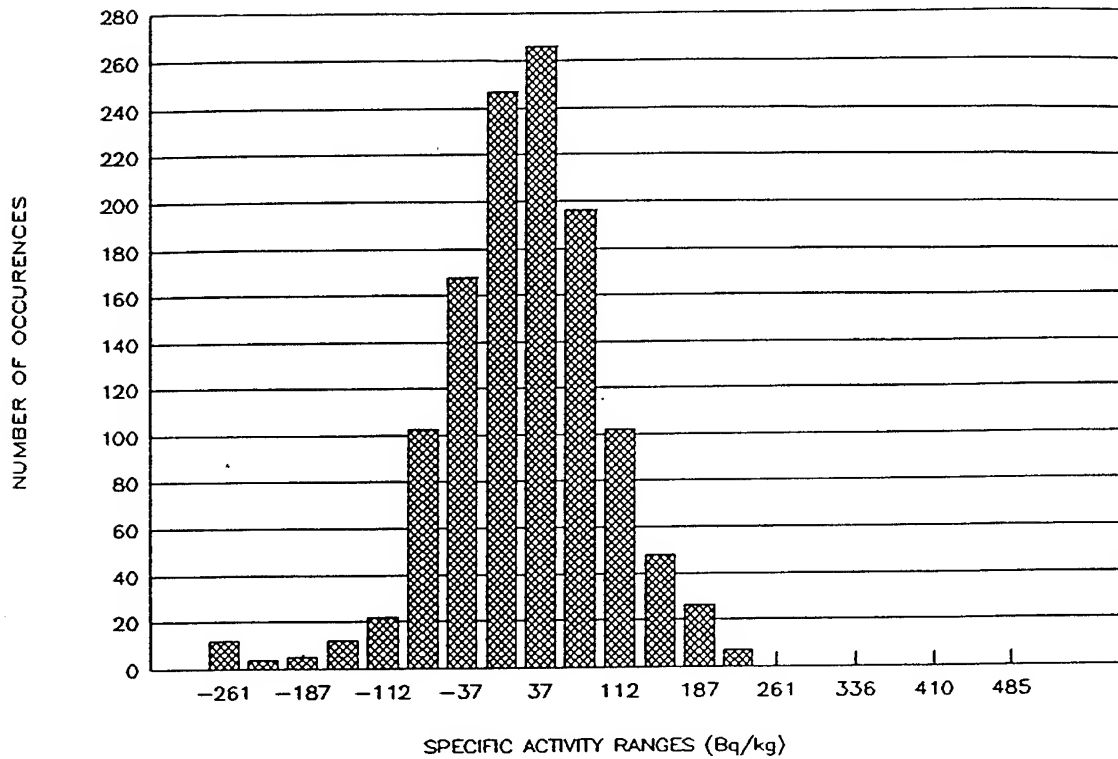
1-GATE SORTS DETECTR	SORTS	388 FREQ%	ACT_NO (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT FREQ (#)	FREQ%	ACT_P (kBq)
1	25	6.4%	-14000	12	-261	4000	72	9.5%	4
2	63	16.2%	-12000	4	-224	8000	325	42.7%	8
3	57	14.7%	-10000	5	-187	12000	120	15.8%	12
4	70	18.0%	-8000	12	-149	16000	83	10.9%	16
5	71	18.3%	-6000	22	-112	20000	27	3.5%	20
6	63	16.2%	-4000	103	-75	24000	18	2.4%	24
7	36	9.3%	-2000	168	-37	28000	20	2.6%	28
8	3	0.8%	0	247	0	32000	19	2.5%	32
TOTAL	388		2000	266	37	36000	14	1.8%	36
			4000	196	75	40000	6	0.8%	40
			6000	102	112	44000	9	1.2%	44
2-GATE SORTS		373	8000	48	149	48000	5	0.7%	48
DETECTR	SORTS	FREQ%	10000	26	187	52000	7	0.9%	52
8			12000	7	224	56000	6	0.8%	56
9	47	12.6%	14000	0	261	60000	8	1.1%	60
10	51	13.7%	16000	0	299	64000	5	0.7%	64
11	60	16.1%	18000	0	336	68000	4	0.5%	68
12	63	16.9%	20000	0	373	72000	1	0.1%	72
13	75	20.1%	22000	0	410	76000	2	0.3%	76
14	58	15.5%	24000	0	448	80000	1	0.1%	80
15	19	5.1%	26000	0	485	84000	0	0.0%	84
TOTAL	373		>28000	0	0	>84000	9	1.2%	>84
			TOTAL	1218		TOTAL	761		
SUMMARY TOTALS									
HOT PARTICLE EVENTS		752				SORTS BY ONE GATE ONLY	388		
MULTIPARTICLE EVENTS		452				SORTS BY TWO GATES	373		
DISTRIBUTED EVENTS		0							

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

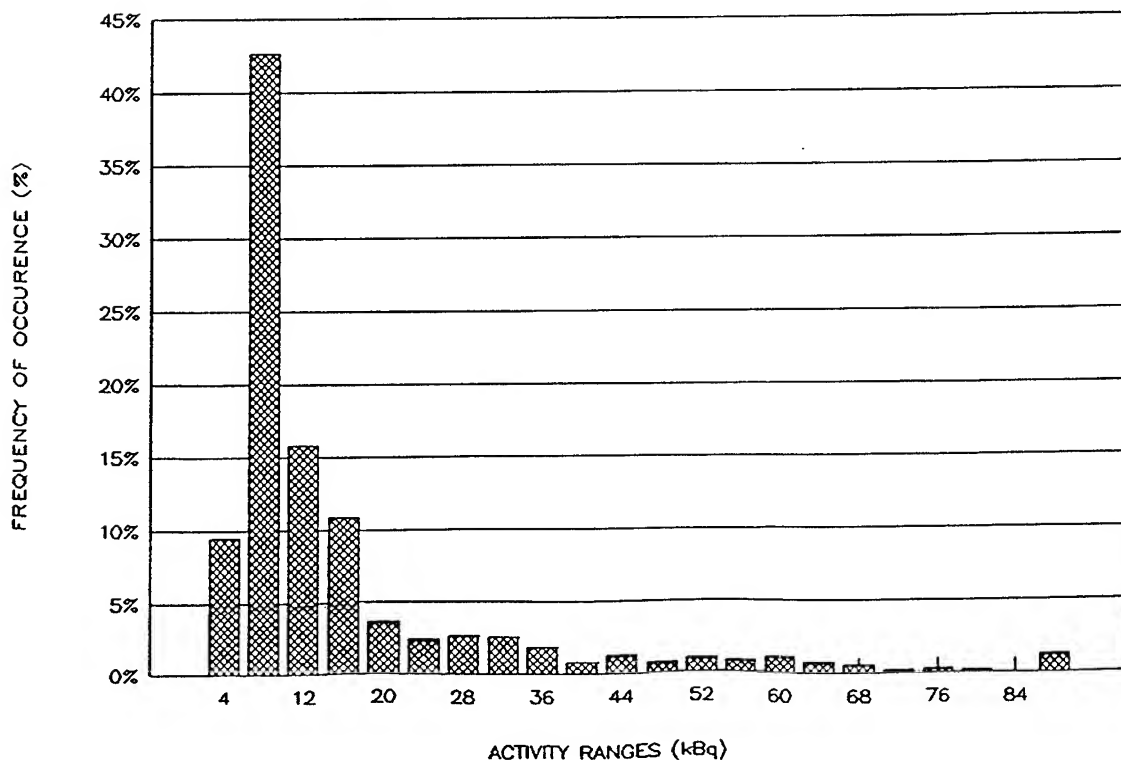
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 06-Jan-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 06-Jan-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 05-Jan-93

AVERAGE BACKGROUND COUNT RATE	0.71 ± 0.03 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	0.60 tons	70.0 tons	
MAXIMUM/SORT	5.4 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	48.2 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.1%
EQUIVALENT SOIL-IN-GROUND	0.48 yd ³	55.5 yd ³	55.9 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	7,850 kBq		
MAXIMUM/SORT	202 kBq		
MINIMUM/SORT	2.4 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	3,577 kBq	4,760 kBq	
MINIMUM/SORT	186 kBq	18 kBq	
SPECIFIC ACTIVITY	0 Bq	-9 kBq	
	5,924 Bq/kg	68 Bq/kg	
WORK HISTORY			
WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	08:07 AM	END SOIL PROCESSING	04:56 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr
WORK HOURS	10.0 hr		
AVAILABLE HOURS	10.0 hr		
ACTUAL PROCESS HOURS (total 20-sec records)	7.32 hr		
DOWN-TIME	2.68 hr		
TOTAL SYSTEM PAUSE	2.87 hr		
NONAVAILABLE HOURS	0.0 hr		
START-UP	1.12 hr		
SHUT-DOWN	0.55 hr		
PLANT PERFORMANCE	73.2%		
PRODUCTIVITY	73.2%		
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	1,847		
NONPROCESS RECORDS (Test, calibration, etc)	9		
20-SEC PROCESS RECORDS	1,317		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	876 AD=0 & MD=0 & MND>0		
SOME SORT	441 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	0	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	None	07:02
ACT_P <5 kBq	132 24.9%		11:06

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS

13,170

16:57

2-SEC RECORDS WITH SORTS - 530 (ACT_P > 0 kBq)

2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	120	80.5%
3 DETECTORS	27	18.1%
4 DETECTORS	2	1.3%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%

TOTAL 149

NET 2-SEC RECORDS WITH SORTS 381

2-SEC PERIODS WITH NO SORTS 12,789

AVG TIME BETWEEN 2-SEC SORTS 69.1 sec

1-GATE SORTS	269	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)
1	14	5.2%	-14000	0	-261	4000	70 13.2%
2	41	15.2%	-12000	0	-224	8000	195 36.8%
3	42	15.6%	-10000	2	-187	12000	95 17.9%
4	45	16.7%	-8000	1	-149	16000	44 8.3%
5	51	19.0%	-6000	2	-112	20000	23 4.3%
6	38	14.1%	-4000	9	-75	24000	28 5.3%
7	29	10.8%	-2000	36	-37	28000	13 2.5%
8	9	3.3%	0	120	0	32000	7 1.3%
TOTAL	269		2000	261	37	36000	8 1.5%
			4000	343	75	40000	5 0.9%
2-GATE SORTS	261	6000	267	112	44000	6 1.1%	44
DETECTR	SORTS	FREQ%	8000	170	149	48000	6 1.1%
8			10000	59	187	52000	6 1.1%
9	22	8.4%	12000	35	224	56000	2 0.4%
10	40	15.3%	14000	15	261	60000	2 0.4%
11	53	20.3%	16000	4	299	64000	4 0.8%
12	49	18.8%	18000	1	336	68000	3 0.6%
13	41	15.7%	20000	1	373	72000	4 0.8%
14	33	12.6%	22000	0	410	76000	0 0.0%
15	23	8.8%	24000	0	448	80000	0 0.0%
TOTAL	261		26000	0	485	84000	1 0.2%
			>28000	0	0	>84000	8 1.5%
			TOTAL	1326		TOTAL	530

SUMMARY TOTALS

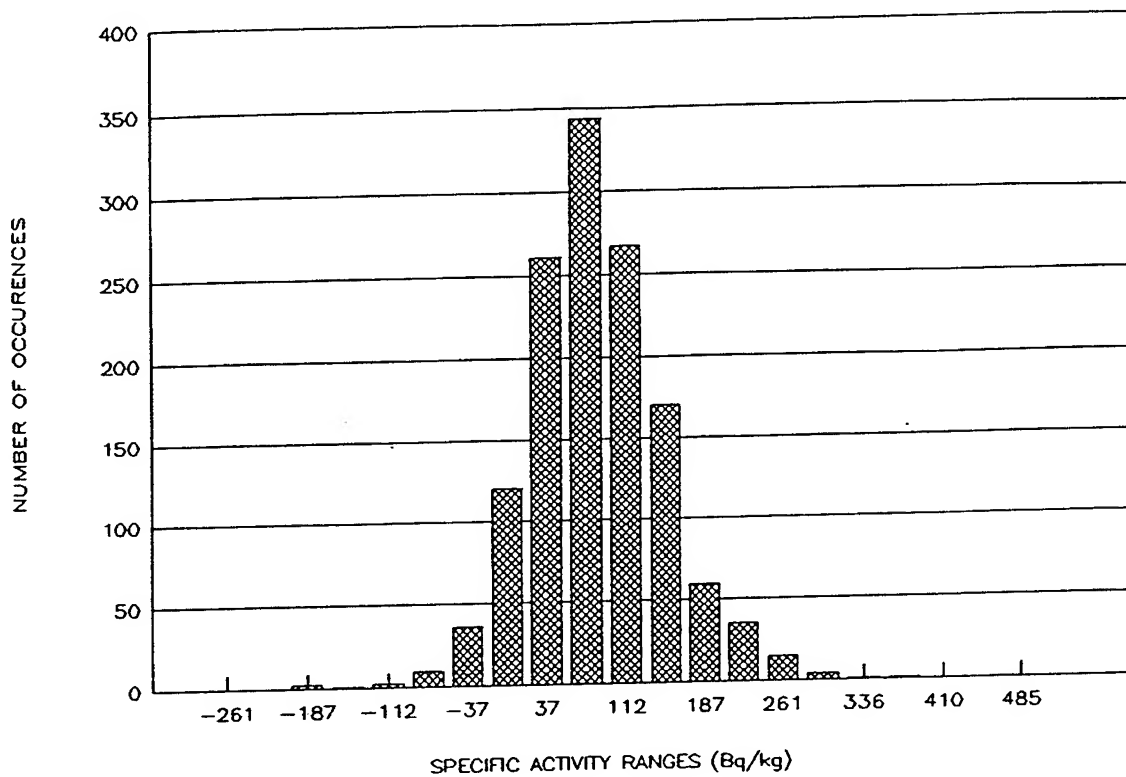
HOT PARTICLE EVENTS	520	SORTS BY ONE GATE ONLY	269
MULTIPARTICLE EVENTS	382	SORTS BY TWO GATES	261
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

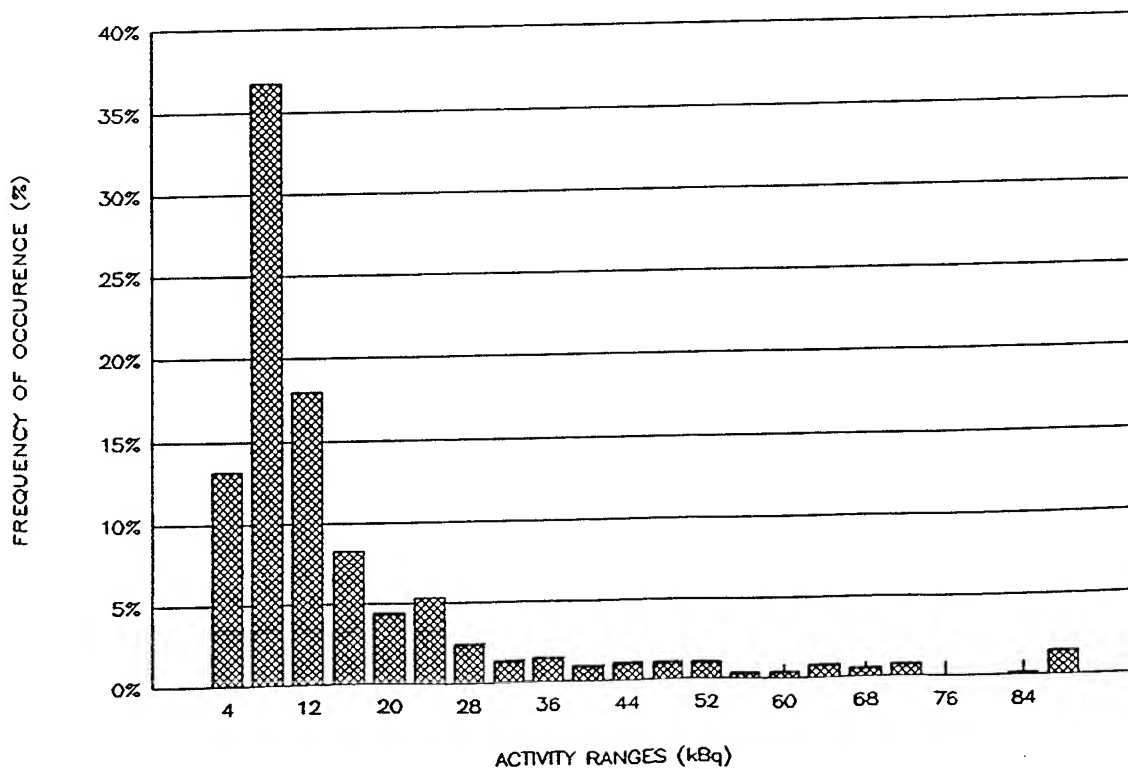
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1-LOG DATA FOR 05-Jan-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 05-Jan-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 05-Jan-93

AVERAGE BACKGROUND COUNT RATE 0.78 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.63 tons	69.7 tons
MAXIMUM/SORT	8 kg	53.6 kg
MINIMUM/SORT	0.7 kg	45.5 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		99.1%
EQUIVALENT SOIL-IN-GROUND	0.50 yd ³	55.2 yd ³ 55.7 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	8,406 kBq
MAXIMUM/SORT	205 kBq
MINIMUM/SORT	2.7 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

	3,951 kBq	(197)kBq
MAXIMUM/SORT	154 kBq	14 kBq
MINIMUM/SORT	0 Bq	-12 kBq
SPECIFIC ACTIVITY	6,249 Bq/kg	(3)Bq/kg

WORK HISTORY

WORK DAY START	07:00 AM
PLANT START-UP	07:00 AM
START SOIL PROCESSING	08:07 AM
LUNCH START	11:30 AM

WORK DAY END	05:30 PM
PLANT SHUT-DOWN	05:30 PM
END SOIL PROCESSING	04:56 PM
LUNCH PERIOD	0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	10.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	7.29 hr
DOWN-TIME	2.71 hr
TOTAL SYSTEM PAUSE	2.90 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	1.12 hr
SHUT-DOWN	0.56 hr
PLANT PERFORMANCE	72.9%
PRODUCTIVITY	72.9%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	1,841
NONPROCESS RECORDS (Test, calibration, etc)	9

20-SEC PROCESS RECORDS

TOTAL SORT	1,312
NO SORT	0 MD>0 & MND=0
SOME SORT	838 AD=0 & MD=0 & MND>0
UNEXPLAINED RECORDS	474 AD>0&0<MD<MNDmax&MND<MNDmax
	0

0<AD<1kBq & MD>0	1	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	09:09:05	07:02
ACT_P <5 kBq	146		11:04

JA SOIL CLEANUP PLANT LOG SUMMARY

16:57

2-SEC COUNT PERIODS 13,120

2-SEC RECORDS WITH SORTS 529 (ACT_P >0 kBq)

2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	116	78.9%
3 DETECTORS	24	16.3%
4 DETECTORS	6	4.1%
5 DETECTORS	1	0.7%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	147	

NET 2-SEC RECORDS WITH SORTS 382

2-SEC PERIODS WITH NO SORTS 12,738

AVG TIME BETWEEN 2-SEC SORTS 68.7 sec

1-GATE SORTS	264	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P	
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)	
1	21	8.0%	-14000	3	-261	4000	57	10.8%	4
2	43	16.3%	-12000	1	-224	8000	232	43.9%	8
3	44	16.7%	-10000	3	-187	12000	78	14.7%	12
4	48	18.2%	-8000	6	-149	16000	36	6.8%	16
5	43	16.3%	-6000	46	-112	20000	25	4.7%	20
6	34	12.9%	-4000	128	-75	24000	12	2.3%	24
7	25	9.5%	-2000	224	-37	28000	17	3.2%	28
8	6	2.3%	0	297	0	32000	11	2.1%	32
TOTAL	264		2000	273	37	36000	7	1.3%	36
			4000	174	75	40000	5	0.9%	40
			6000	98	112	44000	7	1.3%	44
2-GATE SORTS	265		8000	39	149	48000	4	0.8%	48
DETECTR	SORTS	FREQ%				52000	4	0.8%	52
8			10000	19	187	56000	8	1.5%	56
9	39	14.7%	12000	6	224	60000	2	0.4%	60
10	37	14.0%	14000	3	261	64000	2	0.4%	64
11	59	22.3%	16000	1	299	68000	3	0.6%	68
12	37	14.0%	18000	0	336	72000	1	0.2%	72
13	34	12.8%	20000	0	373	76000	0	0.0%	76
14	39	14.7%	22000	0	410	80000	0	0.0%	80
15	20	7.5%	24000	0	448	84000	2	0.4%	84
TOTAL	265		26000	0	485				
			>28000	0	0	>84000	16	3.0%	>84
			TOTAL	1321		TOTAL	529		

SUMMARY TOTALS

HOT PARTICLE EVENTS	530	SORTS BY ONE GATE ONLY	264
MULTIPARTICLE EVENTS	413	SORTS BY TWO GATES	265
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

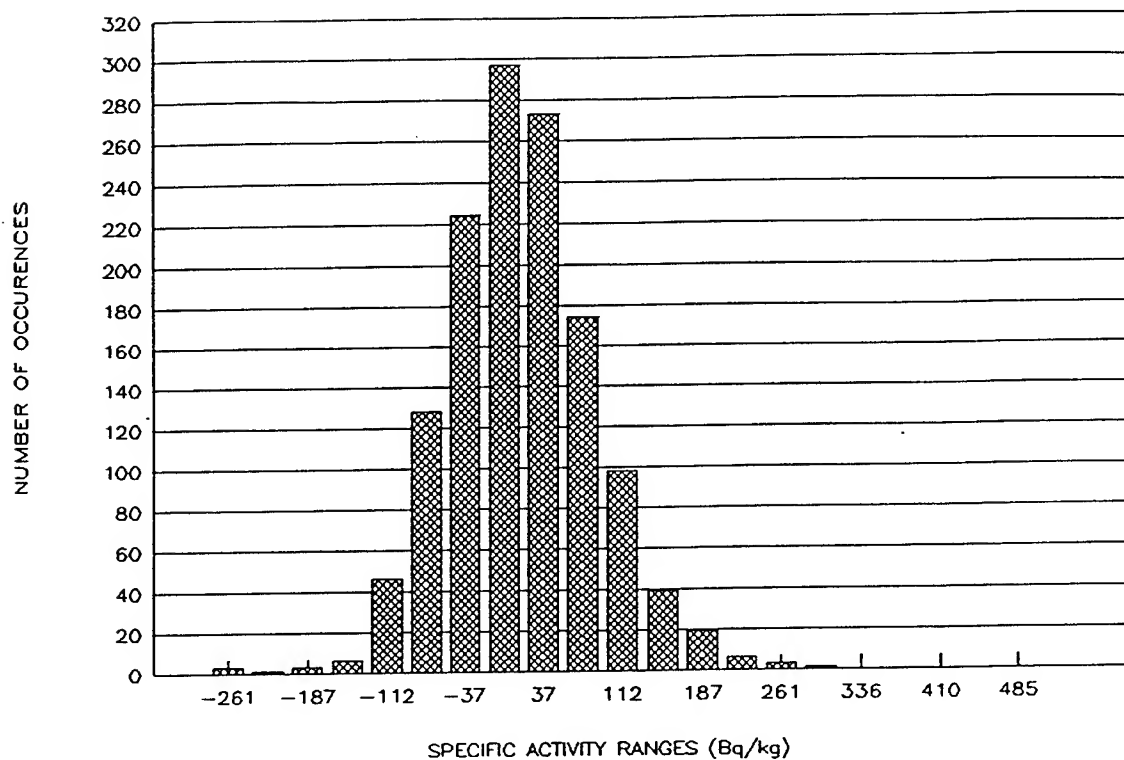
1.00 Source check (Soil on belt)

2.00 Empty belt

3.00 Test (No process soil)

CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 05-Jan-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 04-Jan-93

AVERAGE BACKGROUND COUNT RATE 0.71 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.90 tons	73.2 tons
MAXIMUM/SORT	9.4 kg	53.6 kg
MINIMUM/SORT	0.7 kg	44.2 kg

		98.8%
WEIGHT RECOVERY OR VOLUME RECOVERY		
EQUIVALENT SOIL-IN-GROUND	0.71 yd ³	58.0 yd ³ 58.7 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	13,227 kBq
MAXIMUM/SORT	329 kBq
MINIMUM/SORT	2.0 kBq

	5,821 kBq	4,952 kBq
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY		
MAXIMUM/SORT	272 kBq	16 kBq
MINIMUM/SORT	0 Bq	-7 kBq
SPECIFIC ACTIVITY	6,482 Bq/kg	68 Bq/kg

WORK HISTORY

WORK DAY START	07:00 AM
PLANT START-UP	07:00 AM
START SOIL PROCESSING	08:08 AM
LUNCH START	11:30 AM

WORK DAY END	05:30 PM
PLANT SHUT-DOWN	05:30 PM
END SOIL PROCESSING	04:58 PM
LUNCH PERIOD	0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	10.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	7.68 hr
DOWN-TIME	2.32 hr
TOTAL SYSTEM PAUSE	2.21 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	1.14 hr
SHUT-DOWN	0.53 hr
PLANT PERFORMANCE	76.8%
PRODUCTIVITY	76.8%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 2,255
 NONPROCESS RECORDS (Test, calibration, etc) 6

20-SEC PROCESS RECORDS

TOTAL SORT	1,382	0 MD>0 & MND=0
NO SORT	843	AD=0 & MD=0 & MND>0
SOME SORT	539	AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0	
0<AD<1kBq & MD>0	0	UNEXPLAIN PAUSE
AD=0 & MD	0	TIME TIME
AD<0 & MD	0	None 07:04
ACT_P <5 kBq	253	11:10
	29.0%	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS

13,820

12:09

2-SEC RECORDS WITH SORTS

873 (ACT_P > 0 kBq)

2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	196	81.0%
3 DETECTORS	40	16.5%
4 DETECTORS	5	2.1%
5 DETECTORS	1	0.4%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%

TOTAL 242

NET 2-SEC RECORDS WITH SORTS

631

2-SEC PERIODS WITH NO SORTS

13,189

AVG TIME BETWEEN 2-SEC SORTS

43.8 sec

1-GATE SORTS	446	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	18	4.0%	-14000	0	-261	4000	119	13.6%
2	49	11.0%	-12000	0	-224	8000	363	41.6%
3	67	15.0%	-10000	1	-187	12000	162	18.6%
4	86	19.3%	-8000	1	-149	16000	68	7.8%
5	78	17.5%	-6000	3	-112	20000	32	3.7%
6	66	14.8%	-4000	11	-75	24000	21	2.4%
7	57	12.8%	-2000	44	-37	28000	20	2.3%
8	25	5.6%	0	142	0	32000	10	1.1%
TOTAL	446		2000	274	37	36000	12	1.4%
			4000	328	75	40000	9	1.0%
2-GATE SORTS	427		6000	267	112	44000	5	0.6%
DETECTR	SORTS	FREQ%	8000	166	149	48000	3	0.3%
8			10000	92	187	52000	6	0.7%
9	38	8.9%	12000	37	224	56000	4	0.5%
10	52	12.2%	14000	18	261	60000	4	0.5%
11	82	19.2%	16000	3	299	64000	3	0.3%
12	83	19.4%	18000	1	336	68000	4	0.5%
13	76	17.8%	20000	0	373	72000	3	0.3%
14	55	12.9%	22000	0	410	76000	0	0.0%
15	41	9.6%	24000	0	448	80000	1	0.1%
TOTAL	427		26000	0	485	84000	0	0.0%
			>28000	0	0	>84000	24	2.7%
			TOTAL	1388		TOTAL	873	

SUMMARY TOTALS

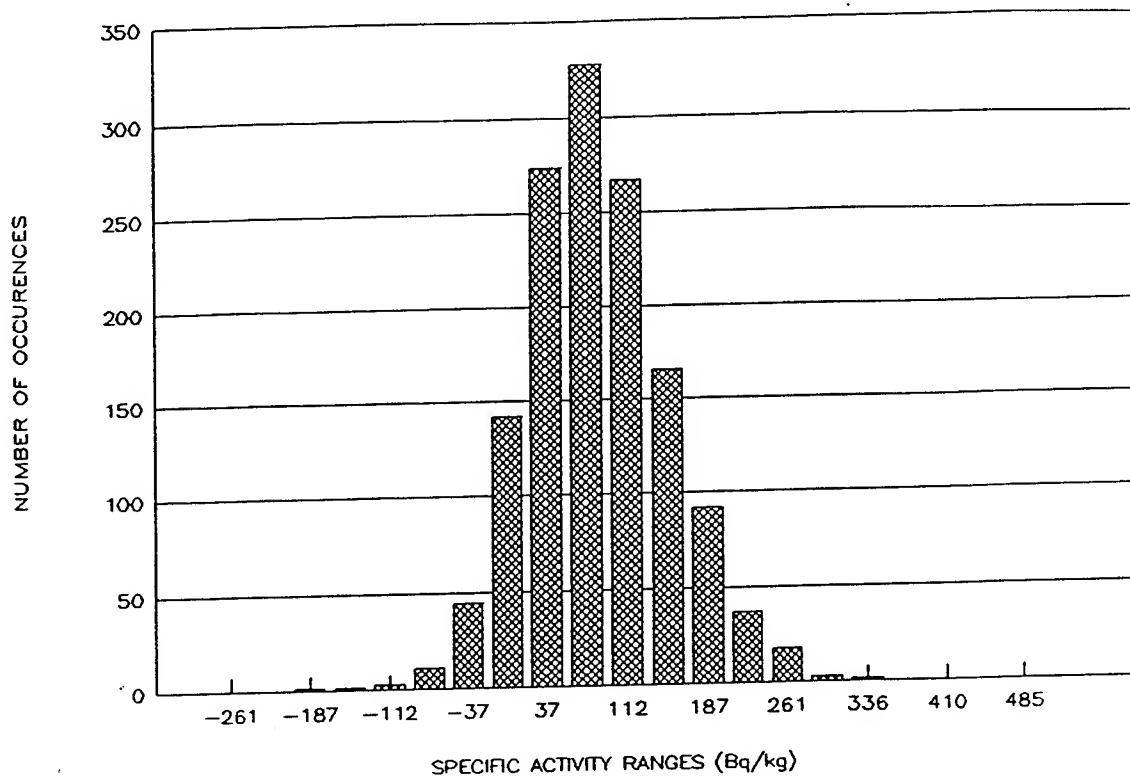
HOT PARTICLE EVENTS	851	SORTS BY ONE GATE ONLY	446
MULTIPARTICLE EVENTS	490	SORTS BY TWO GATES	427
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

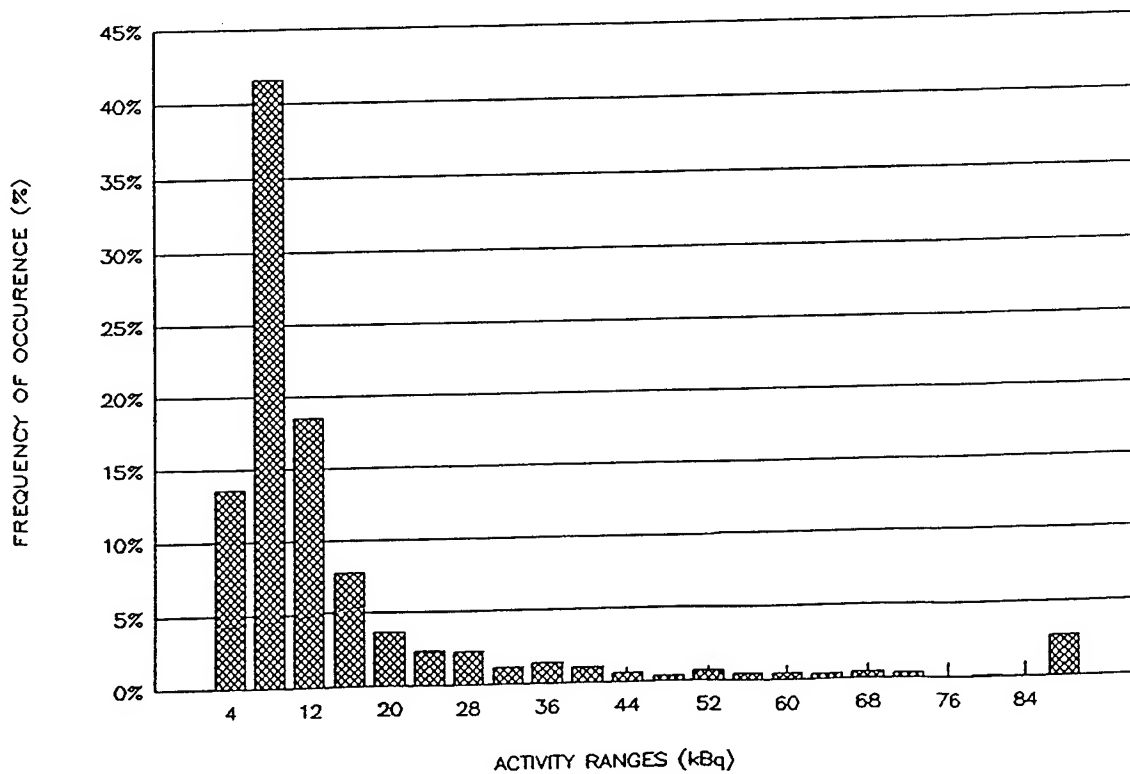
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 04-Jan-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 04-Jan-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 04-Jan-93

AVERAGE BACKGROUND COUNT RATE 0.78 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN	
MASS TOTAL	0.83 tons	72.7 tons	
MAXIMUM/SORT	6.7 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	46.9 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			98.9%
EQUIVALENT SOIL-IN-GROUND	0.66 yd ³	57.7 yd ³	58.3 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	14,692 kBq
MAXIMUM/SORT	324 kBq
MINIMUM/SORT	2.7 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

	6,443 kBq	(1,199)kBq
MAXIMUM/SORT	277 kBq	13 kBq
MINIMUM/SORT	0 Bq	-11 kBq
SPECIFIC ACTIVITY	7,730 Bq/kg	(16)Bq/kg

WORK HISTORY

WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	08:08 AM	END SOIL PROCESSING	04:57 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	10.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	7.63 hr
DOWN-TIME	2.37 hr
TOTAL SYSTEM PAUSE	2.22 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	1.14 hr
SHUT-DOWN	0.55 hr
PLANT PERFORMANCE	76.3%
PRODUCTIVITY	76.3%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 2,222

NONPROCESS RECORDS (Test, calibration, etc) 12

20-SEC PROCESS RECORDS

TOTAL SORT	0 MD>0 & MND=0	1,373
NO SORT	876 AD=0 & MD=0 & MND>0	
SOME SORT	497 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS	0	
0<AD<1kBq & MD>0	0	UNEXPLAIN PAUSE
AD=0 & MD	0	TIME TIME
AD<0 & MD	0	None 07:04
ACT_P <5 kBq	199 23.4%	11:09

JA SOIL CLEANUP PLANT LOG SUMMARY

12:09

2-SEC COUNT PERIODS 13,730
 2-SEC RECORDS WITH SORTS 849 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 234 80.4%
 3 DETECTORS 52 17.9%
 4 DETECTORS 4 1.4%
 5 DETECTORS 1 0.3%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 291
 NET 2-SEC RECORDS WITH SORTS 558
 2-SEC PERIODS WITH NO SORTS 13,172
 AVG TIME BETWEEN 2-SEC SORTS 49.2 sec

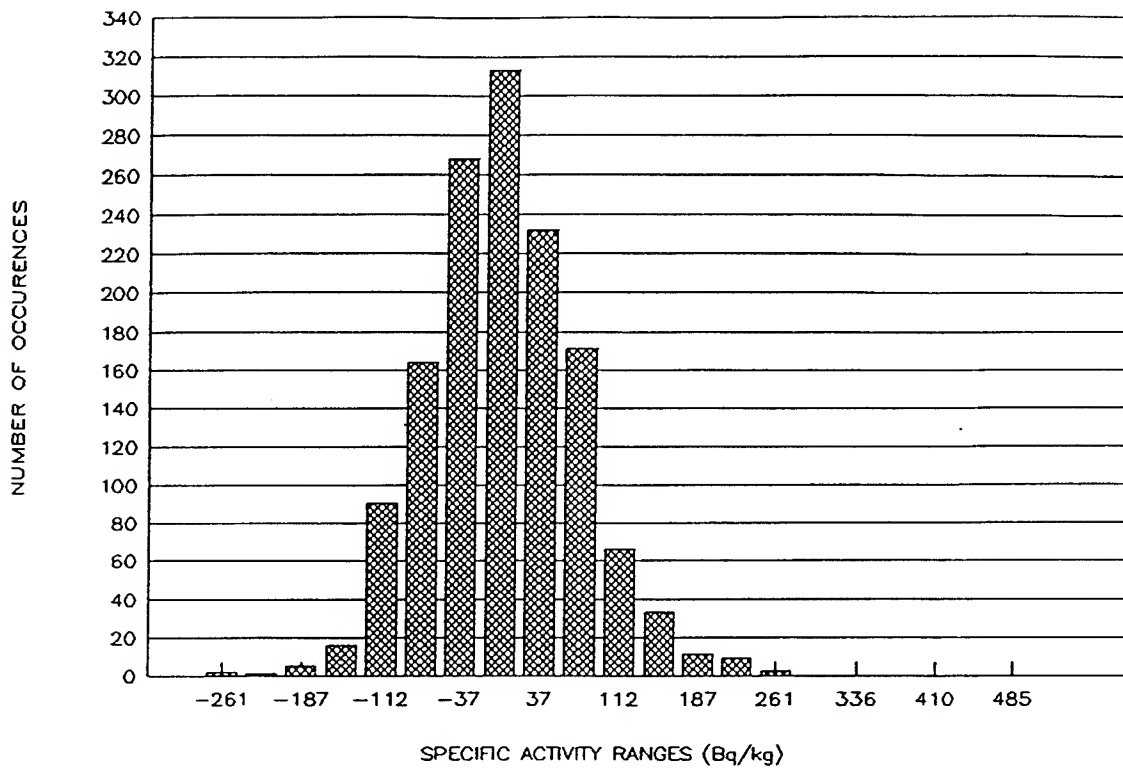
1-GATE SORTS DETECTR	SORTS	424 FREQ%	ACT_ND (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT (#)	FREQ%	ACT_P (kBq)
1	27	6.4%	-14000	2	-261	4000	86	10.1%	4
2	70	16.5%	-12000	1	-224	8000	333	39.2%	8
3	91	21.5%	-10000	5	-187	12000	120	14.1%	12
4	89	21.0%	-8000	16	-149	16000	82	9.7%	16
5	81	19.1%	-6000	91	-112	20000	48	5.7%	20
6	48	11.3%	-4000	164	-75	24000	35	4.1%	24
7	16	3.8%	-2000	268	-37	28000	28	3.3%	28
8	2	0.5%	0	313	0	32000	17	2.0%	32
TOTAL	424		2000	232	37	36000	17	2.0%	36
			4000	171	75	40000	10	1.2%	40
			6000	66	112	44000	10	1.2%	44
2-GATE SORTS DETECTR	SORTS	425 FREQ%	8000	33	149	48000	5	0.6%	48
8			10000	11	187	52000	1	0.1%	52
9	49	11.5%	12000	9	224	56000	5	0.6%	56
10	65	15.3%	14000	3	261	60000	8	0.9%	60
11	107	25.2%	16000	0	299	64000	7	0.8%	64
12	90	21.2%	18000	0	336	68000	8	0.9%	68
13	63	14.8%	20000	0	373	72000	0	0.0%	72
14	40	9.4%	22000	0	410	76000	2	0.2%	76
15	11	2.6%	24000	0	448	80000	0	0.0%	80
TOTAL	425		26000	0	485	84000	1	0.1%	84
			>28000	0	0	>84000	26	3.1%	>84
			TOTAL	1385		TOTAL	849		
SUMMARY TOTALS									
HOT PARTICLE EVENTS			809	SORTS BY ONE GATE ONLY			424		
MULTIPARTICLE EVENTS			437	SORTS BY TWO GATES			425		
DISTRIBUTED EVENTS			0						

REC CODE EXPLANATION

- 1.00 Source check (Soil on belt)
- 2.00 Empty belt
- 3.00 Test (No process soil)

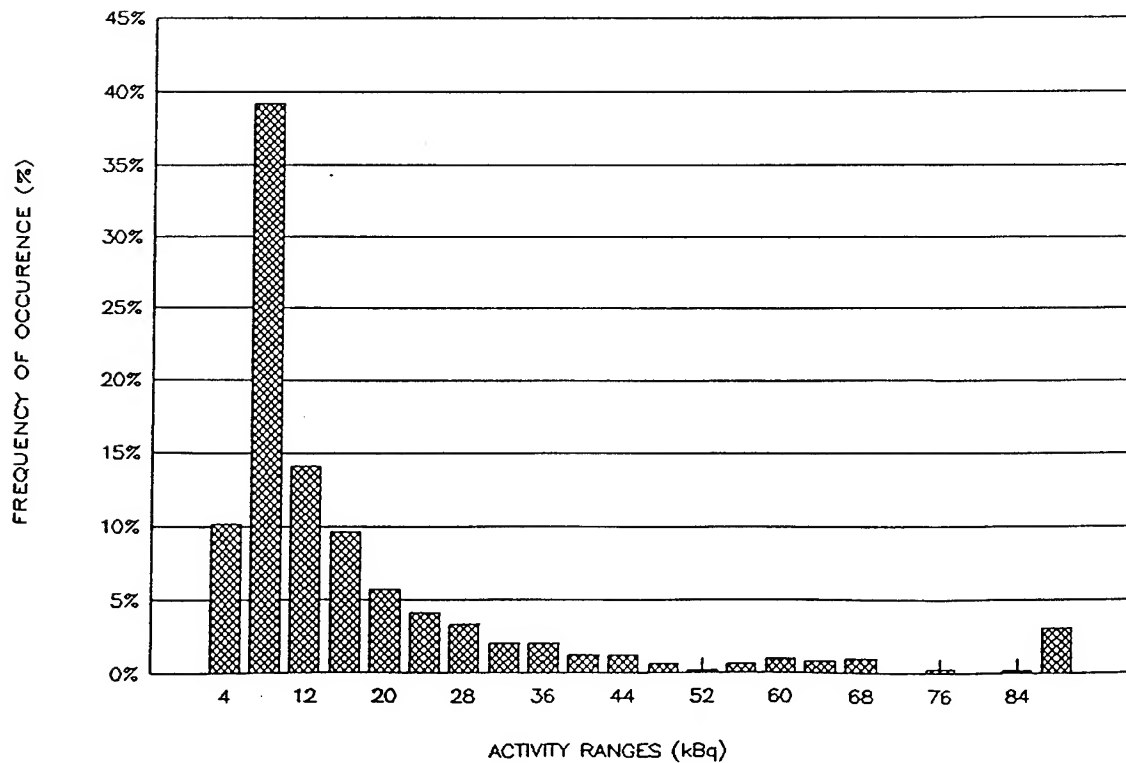
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 04-Jan-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 04-Jan-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 02-Jan-93

AVERAGE BACKGROUND COUNT RATE	0.69 ± 0.04 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		0.62 tons	19.5 tons
MAXIMUM/SORT		11.4 kg	53.6 kg
MINIMUM/SORT		0.7 kg	42.2 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			96.9%
EQUIVALENT SOIL-IN-GROUND	0.49 yd ³	15.4 yd ³	15.9 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	9,310 kBq		
MAXIMUM/SORT	180 kBq		
MINIMUM/SORT	2.4 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	4,048 kBq	2,005 kBq	
MINIMUM/SORT	193 kBq	16 kBq	
SPECIFIC ACTIVITY	0 Bq	-5 kBq	
	6,497 Bq/kg	103 Bq/kg	
WORK HISTORY			
WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	07:24 AM	END SOIL PROCESSING	09:29 AM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr
WORK HOURS		10.0 hr	
AVAILABLE HOURS		10.0 hr	
ACTUAL PROCESS HOURS (total 20-sec records)		2.08 hr	
DOWN-TIME		7.92 hr	
TOTAL SYSTEM PAUSE		0.50 hr	
NONAVAILABLE HOURS		0.0 hr	
START-UP		0.40 hr	
SHUT-DOWN		8.01 hr	
PLANT PERFORMANCE		20.8%	
PRODUCTIVITY		20.8%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)		1,050	
NONPROCESS RECORDS (Test, calibration, etc)		7	
20-SEC PROCESS RECORDS		375	
TOTAL SORT		0 MD>0 & MND=0	
NO SORT		114 AD=0 & MD=0 & MND>0	
SOME SORT		261 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS		0	
0<AD<1kBq & MD>0	1		UNEXPLAIN PAUSE
AD=0 & MD	0		TIME TIME
AD<0 & MD	0		09:23:37 06:54
ACT_P <5 kBq	200	29.6%	09:29

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 3,750
 2-SEC RECORDS WITH SORTS 675 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 169 80.9%
 3 DETECTORS 30 14.4%
 4 DETECTORS 9 4.3%
 5 DETECTORS 1 0.5%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 209
 NET 2-SEC RECORDS WITH SORTS 466
 2-SEC PERIODS WITH NO SORTS 3,284
 AVG TIME BETWEEN 2-SEC SORTS 16.1 sec

1-GATE SORTS		356	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	12	3.4%	-14000	0	-261	4000	105	15.6%	4
2	54	15.2%	-12000	1	-224	8000	246	36.4%	8
3	61	17.1%	-10000	0	-187	12000	114	16.9%	12
4	44	12.4%	-8000	1	-149	16000	50	7.4%	16
5	68	19.1%	-6000	1	-112	20000	45	6.7%	20
6	43	12.1%	-4000	2	-75	24000	20	3.0%	24
7	53	14.9%	-2000	5	-37	28000	20	3.0%	28
8	21	5.9%	0	16	0	32000	11	1.6%	32
TOTAL	356		2000	46	37	36000	10	1.5%	36
			4000	71	75	40000	10	1.5%	40
2-GATE SORTS		319	6000	87	112	44000	8	1.2%	44
DETECTR	SORTS	FREQ%	8000	66	149	48000	4	0.6%	48
8			10000	46	187	52000	2	0.3%	52
9	31	9.7%	12000	26	224	56000	4	0.6%	56
10	59	18.5%	14000	11	261	60000	4	0.6%	60
11	42	13.2%	16000	2	299	64000	4	0.6%	64
12	55	17.2%	18000	1	336	68000	3	0.4%	68
13	43	13.5%	20000	0	373	72000	2	0.3%	72
14	50	15.7%	22000	0	410	76000	4	0.6%	76
15	39	12.2%	24000	0	448	80000	1	0.1%	80
TOTAL	319		26000	0	485	84000	1	0.1%	84
			>28000	0	0	>84000	7	1.0%	>84
			TOTAL	382		TOTAL	675		

SUMMARY TOTALS

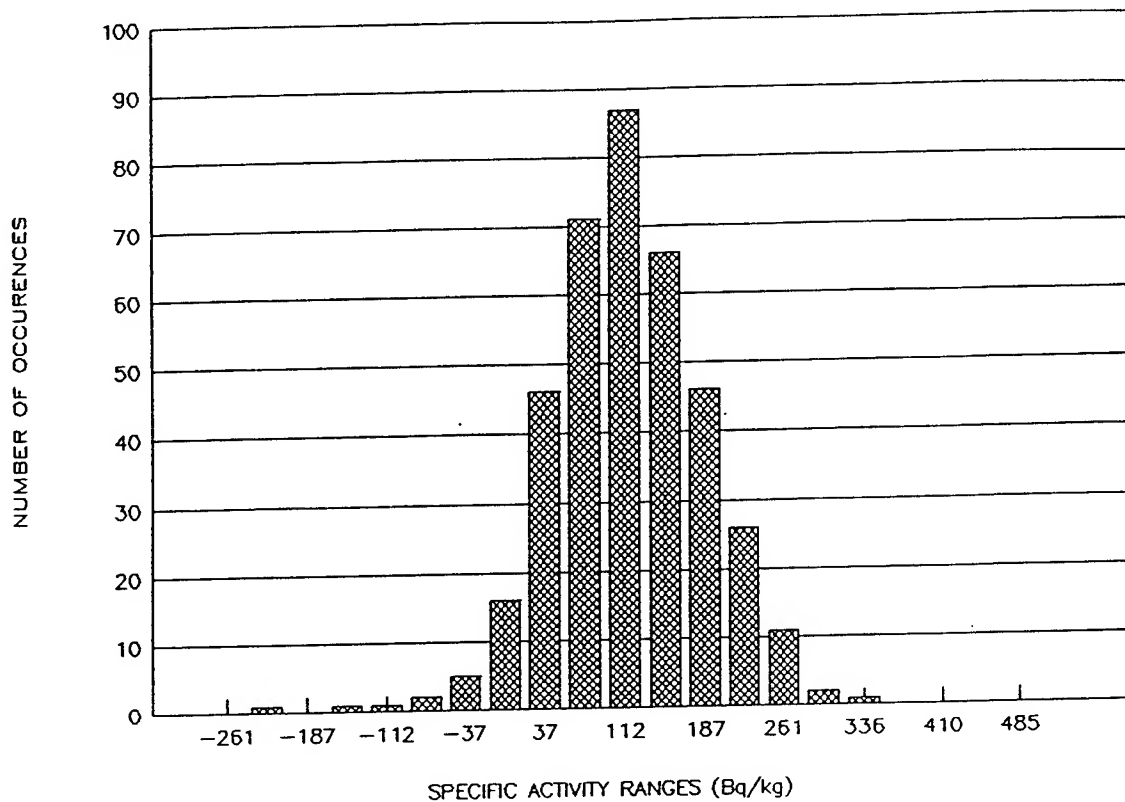
HOT PARTICLE EVENTS	623	SORTS BY ONE GATE ONLY	356
MULTIPARTICLE EVENTS	308	SORTS BY TWO GATES	319
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

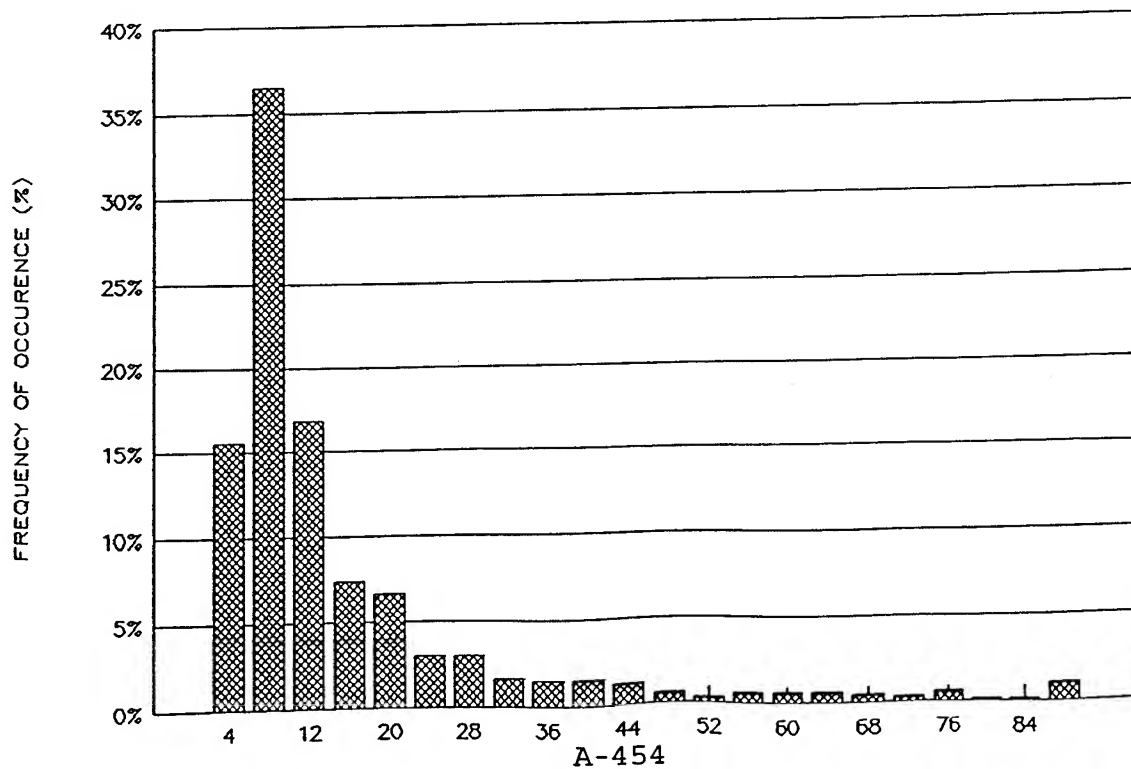
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 02-Jan-93



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 02-Jan-93



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 31-Dec-92

AVERAGE BACKGROUND COUNT RATE	0.69 ± 0.02 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		0.86 tons	74.9 tons
MAXIMUM/SORT		9.4 kg	53.6 kg
MINIMUM/SORT		0.7 kg	44.2 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			98.9%
EQUIVALENT SOIL-IN-GROUND		0.68 yd ³	59.4 yd ³ 60.1 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL		11,804 kBq	
MAXIMUM/SORT		361 kBq	
MINIMUM/SORT		2.0 kBq	
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY		5,296 kBq	6,327 kBq
MAXIMUM/SORT		246 kBq	16 kBq
MINIMUM/SORT		0 Bq	-6 kBq
SPECIFIC ACTIVITY		6,164 Bq/kg	84 Bq/kg
WORK HISTORY			
WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	08:07 AM	END SOIL PROCESSING	04:53 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr
WORK HOURS		10.0 hr	
AVAILABLE HOURS		10.0 hr	
ACTUAL PROCESS HOURS (total 20-sec records)		7.86 hr	
DOWN-TIME		2.14 hr	
TOTAL SYSTEM PAUSE		1.38 hr	
NONAVAILABLE HOURS		0.0 hr	
START-UP		1.13 hr	
SHUT-DOWN		0.61 hr	
PLANT PERFORMANCE		78.6%	
PRODUCTIVITY		78.6%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)		2,212	
NONPROCESS RECORDS (Test, calibration, etc)		53	
20-SEC PROCESS RECORDS		1,414	
TOTAL SORT		0 MD>0 & MND=0	
NO SORT		874 AD=0 & MD=0 & MND>0	
SOME SORT		540 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS		0	
0<AD<1kBq & MD>0	3		UNEXPLAIN PAUSE
AD=0 & MD	0		TIME TIME
AD<0 & MD	0		12:35:23 07:34
ACT_P <5 kBq	237 29.7%		16:25:23 08:04

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS

14,140

16:26:43

11:09

2-SEC RECORDS WITH SORTS

798 (ACT_P >0 kBq)

11:57

2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	182	83.9%
3 DETECTORS	31	14.3%
4 DETECTORS	3	1.4%
5 DETECTORS	1	0.5%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%

TOTAL

217

NET 2-SEC RECORDS WITH SORTS

581

2-SEC PERIODS WITH NO SORTS

13,559

AVG TIME BETWEEN 2-SEC SORTS

48.7 sec

1-GATE SORTS DETECTR	SORTS	409 FREQ%	ACT_ND (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT FREQ%	ACT_P (kBq)
1	26	6.2%	-14000	0	-261	4000	116 14.0%	4
2	59	14.0%	-12000	0	-224	8000	330 40.0%	8
3	71	16.9%	-10000	1	-187	12000	147 17.8%	12
4	59	14.0%	-8000	3	-149	16000	63 7.6%	16
5	68	16.2%	-6000	0	-112	20000	28 3.4%	20
6	64	15.2%	-4000	11	-75	24000	27 3.3%	24
7	55	13.1%	-2000	36	-37	28000	18 2.2%	28
8	19	4.5%	0	93	0	32000	16 1.9%	32
TOTAL	421		2000	208	37	36000	10 1.2%	36
			4000	321	75	40000	10 1.2%	40
2-GATE SORTS		389	6000	310	112	44000	6 0.7%	44
DETECTR	SORTS	FREQ%	8000	233	149	48000	4 0.5%	48
8			10000	124	187	52000	8 1.0%	52
9	39	9.6%	12000	72	224	56000	6 0.7%	56
10	58	14.3%	14000	23	261	60000	9 1.1%	60
11	80	19.8%	16000	3	299	64000	1 0.1%	64
12	61	15.1%	18000	1	336	68000	1 0.1%	68
13	63	15.6%	20000	0	373	72000	2 0.2%	72
14	61	15.1%	22000	0	410	76000	1 0.1%	76
15	43	10.6%	24000	0	448	80000	2 0.2%	80
TOTAL	405		26000	0	485	84000	0 0.0%	84
			>28000	0	0	>84000	21 2.5%	>84
			TOTAL	1439		TOTAL	826	

SUMMARY- TOTALS

HOT PARTICLE EVENTS	780
MULTIPARTICLE EVENTS	502
DISTRIBUTED EVENTS	0

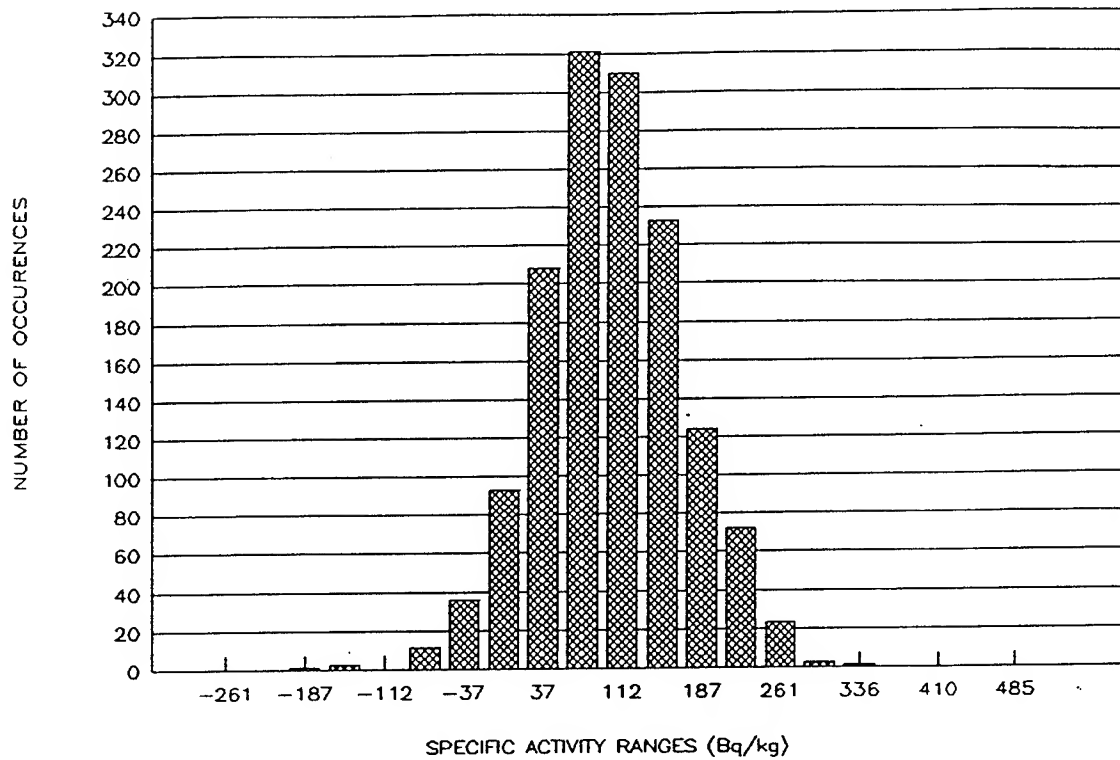
SORTS BY ONE GATE ONLY	409
SORTS BY TWO GATES	389

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

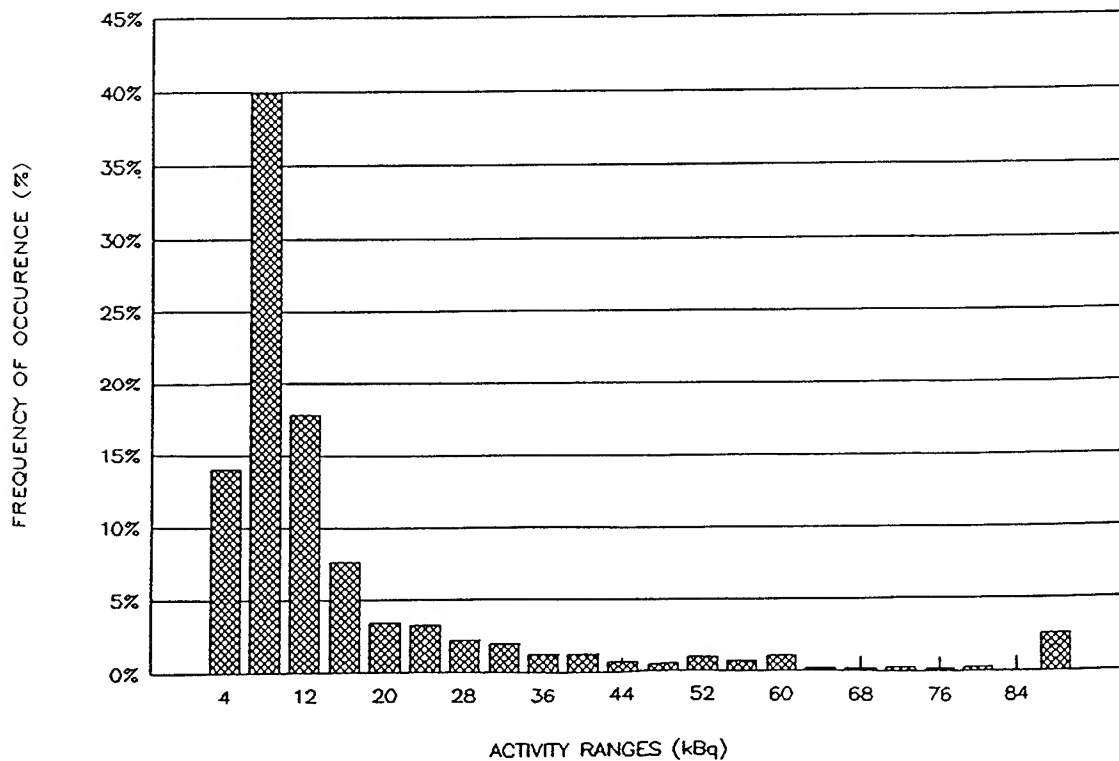
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1.LOG DATA FOR 31-Dec-92



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 31-Dec-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 30-Dec-92

AVERAGE BACKGROUND COUNT RATE 0.70 ± 0.02 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN	
MASS TOTAL	0.69 tons	75.5 tons	
MAXIMUM/SORT	6 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	47.5 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.1%
EQUIVALENT SOIL-IN-GROUND	0.55 yd ³	59.9 yd ³	60.4 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	13,518 kBq
MAXIMUM/SORT	418 kBq
MINIMUM/SORT	2.4 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	5,609 kBq	2,017 kBq
MAXIMUM/SORT	275 kBq	14 kBq
MINIMUM/SORT	0 Bq	-9 kBq
SPECIFIC ACTIVITY	8,087 Bq/kg	27 Bq/kg

WORK HISTORY

WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	07:55 AM	END SOIL PROCESSING	04:59 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	10.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	7.90 hr
DOWN-TIME	2.10 hr
TOTAL SYSTEM PAUSE	1.58 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.93 hr
SHUT-DOWN	0.51 hr
PLANT PERFORMANCE	79.0%
PRODUCTIVITY	79.0%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 2,112

NONPROCESS RECORDS (Test, calibration, etc) 11

20-SEC PROCESS RECORDS 1,422

TOTAL SORT	0 MD>0 & MND=0
NO SORT	927 AD=0 & MD=0 & MND>0
SOME SORT	495 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0

0<AD<1kBq & MD>0	1	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	12:26:11	07:30
ACT_P <5 kBq	173 25.1%		07:58

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS

14,220

11:12

2-SEC RECORDS WITH SORTS

690 (ACT_P >0 kBq)

12:10

2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	166	78.3%
3 DETECTORS	42	19.8%
4 DETECTORS	4	1.9%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%

TOTAL 212

NET 2-SEC RECORDS WITH SORTS

478

2-SEC PERIODS WITH NO SORTS

13,742

AVG TIME BETWEEN 2-SEC SORTS

59.5 sec

1-GATE SORTS DETECTR	SORTS	362 FREQ%	ACT_ND (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT (#)	FREQ%	ACT_P (kBq)
1	17	4.7%	-14000	0	-261	4000	88	12.8%	4
2	47	13.0%	-12000	0	-224	8000	265	38.4%	8
3	54	14.9%	-10000	2	-187	12000	102	14.8%	12
4	70	19.3%	-8000	4	-149	16000	64	9.3%	16
5	54	14.9%	-6000	12	-112	20000	32	4.6%	20
6	56	15.5%	-4000	48	-75	24000	25	3.6%	24
7	50	13.8%	-2000	131	-37	28000	14	2.0%	28
8	14	3.9%	0	295	0	32000	11	1.6%	32
TOTAL	362		2000	348	37	36000	13	1.9%	36
			4000	309	75	40000	7	1.0%	40
2-GATE SORTS		328	6000	169	112	44000	5	0.7%	44
DETECTR	SORTS	FREQ%	8000	71	149	48000	9	1.3%	48
8			10000	29	187	52000	5	0.7%	52
9	30	9.1%	12000	12	224	56000	4	0.6%	56
10	45	13.7%	14000	3	261	60000	8	1.2%	60
11	63	19.2%	16000	0	299	64000	5	0.7%	64
12	59	18.0%	18000	0	336	68000	0	0.0%	68
13	57	17.4%	20000	0	373	72000	2	0.3%	72
14	42	12.8%	22000	0	410	76000	1	0.1%	76
15	32	9.8%	24000	0	448	80000	4	0.6%	80
TOTAL	328		26000	0	485	84000	0	0.0%	84
			>28000	0	0	>84000	26	3.8%	>84
			TOTAL	1433		TOTAL	690		

SUMMARY TOTALS

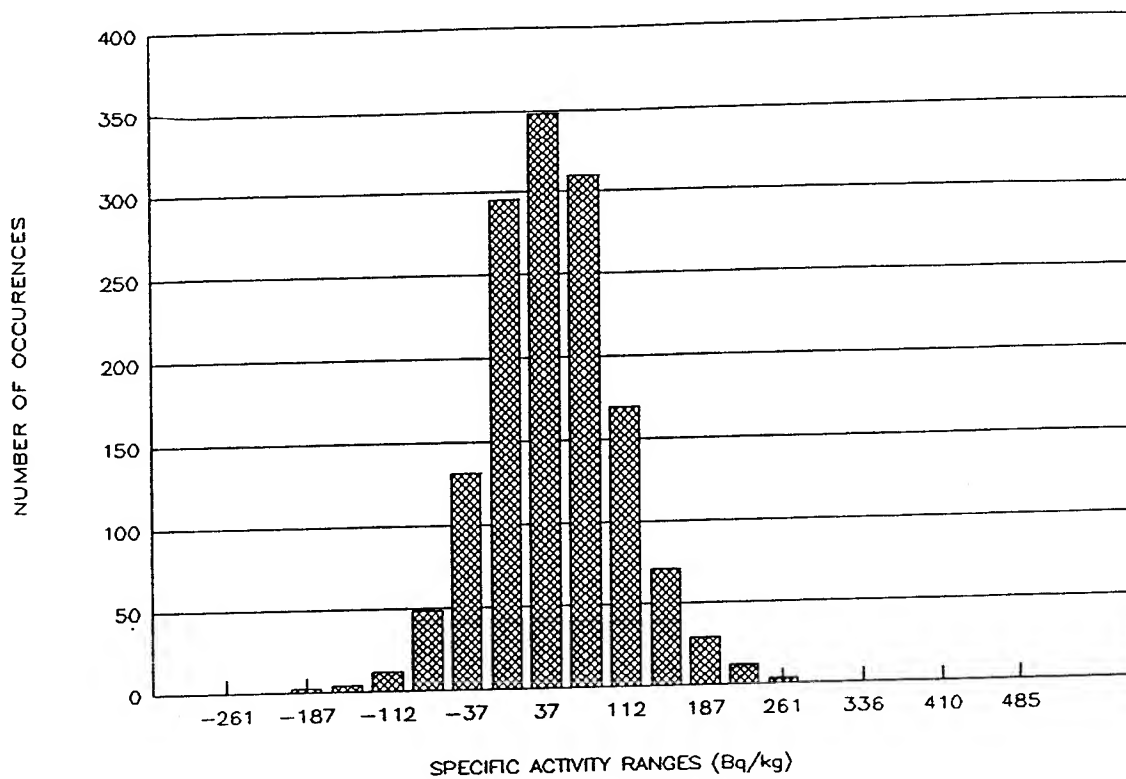
HOT PARTICLE EVENTS	662	SORTS BY ONE GATE ONLY	362
MULTIPARTICLE EVENTS	374	SORTS BY TWO GATES	328
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

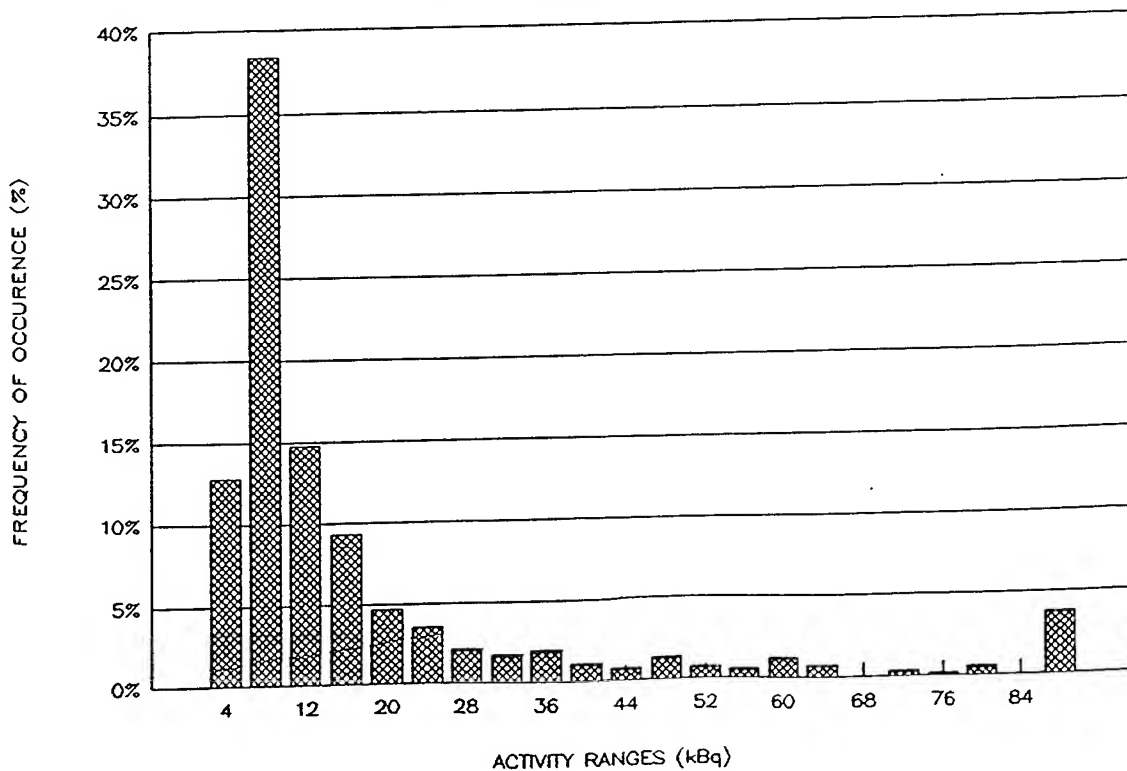
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 30-Dec-92



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 30-Dec-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 29-Dec-92

AVERAGE BACKGROUND COUNT RATE 0.70 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN	
MASS TOTAL	1.11 tons	74.8 tons	
MAXIMUM/SORT	56.2 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	42.8 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			98.5%
EQUIVALENT SOIL-IN-GROUND	0.88 yd ³	59.3 yd ³	60.2 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	19,110 kBq
MAXIMUM/SORT	1,018 kBq
MINIMUM/SORT	2.4 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	7,794 kBq	759 kBq
MAXIMUM/SORT	669 kBq	14 kBq
MINIMUM/SORT	0 Bq	-11 kBq
SPECIFIC ACTIVITY	7,042 Bq/kg	10 Bq/kg

WORK HISTORY

WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	07:34 AM	END SOIL PROCESSING	04:53 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	10.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	7.87 hr
DOWN-TIME	2.13 hr
TOTAL SYSTEM PAUSE	1.79 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	0.58 hr
SHUT-DOWN	0.61 hr
PLANT PERFORMANCE	78.7%
PRODUCTIVITY	78.7%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 2,300

NONPROCESS RECORDS (Test, calibration, etc) 13

20-SEC PROCESS RECORDS

1,417

TOTAL SORT	3 MD>0 & MND=0
NO SORT	889 AD=0 & MD=0 & MND>0
SOME SORT	525 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0

0<AD<1kBq & MD>0 3

UNEXPLAIN PAUSE

AD=0 & MD 0

TIME TIME

AD<0 & MD 0

09:30:27 07:13

ACT_P <5 kBq 249 28.2%

13:11:52 07:42

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS	14,170	15:47:37	07:54
2-SEC RECORDS WITH SORTS	883 (ACT_P >0 kBq)		11:05
2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR			11:59
2 DETECTORS	227 81.7%		14:24
3 DETECTORS	41 14.7%		14:26
4 DETECTORS	9 3.2%		14:28
5 DETECTORS	1 0.4%		
6 DETECTORS	0 0.0%		
7 DETECTORS	0 0.0%		
8 DETECTORS	0 0.0%		
TOTAL	278		
NET 2-SEC RECORDS WITH SORTS	605		
2-SEC PERIODS WITH NO SORTS	13,565		
AVG TIME BETWEEN 2-SEC SORTS	46.8 sec		

1-GATE SORTS	444	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	7	1.6%	-14000	0	-261	4000	124	14.0%
2	44	9.9%	-12000	1	-224	8000	333	37.7%
3	74	16.7%	-10000	3	-187	12000	130	14.7%
4	78	17.6%	-8000	10	-149	16000	64	7.2%
5	91	20.5%	-6000	22	-112	20000	46	5.2%
6	82	18.5%	-4000	94	-75	24000	35	4.0%
7	56	12.6%	-2000	206	-37	28000	21	2.4%
8	12	2.7%	0	339	0	32000	12	1.4%
TOTAL	444		2000	315	37	36000	15	1.7%
			4000	218	75	40000	9	1.0%
2-GATE SORTS	439		6000	116	112	44000	13	1.5%
DETECTR	SORTS	FREQ%	8000	57	149	48000	9	1.0%
8			10000	29	187	52000	5	0.6%
9	29	6.6%	12000	16	224	56000	5	0.6%
10	57	13.0%	14000	3	261	60000	4	0.5%
11	81	18.5%	16000	1	299	64000	4	0.5%
12	87	19.8%	18000	0	336	68000	3	0.3%
13	89	20.3%	20000	0	373	72000	5	0.6%
14	61	13.9%	22000	0	410	76000	2	0.2%
15	35	8.0%	24000	0	448	80000	4	0.5%
TOTAL	439		26000	0	485	84000	3	0.3%
			>28000	0	0	>84000	37	4.2%
			TOTAL	1430		TOTAL	883	

SUMMARY TOTALS

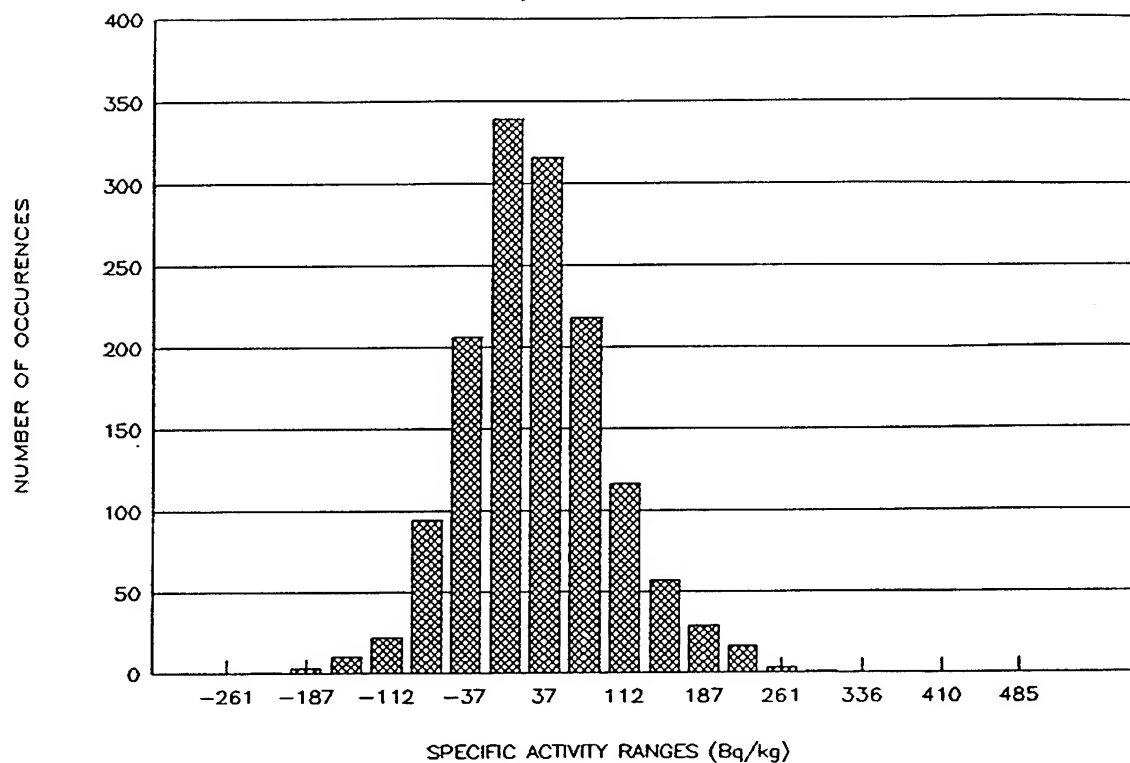
HOT PARTICLE EVENTS	845	SORTS BY ONE GATE ONLY	444
MULTIPARTICLE EVENTS	570	SORTS BY TWO GATES	439
DISTRIBUTED EVENTS	236		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

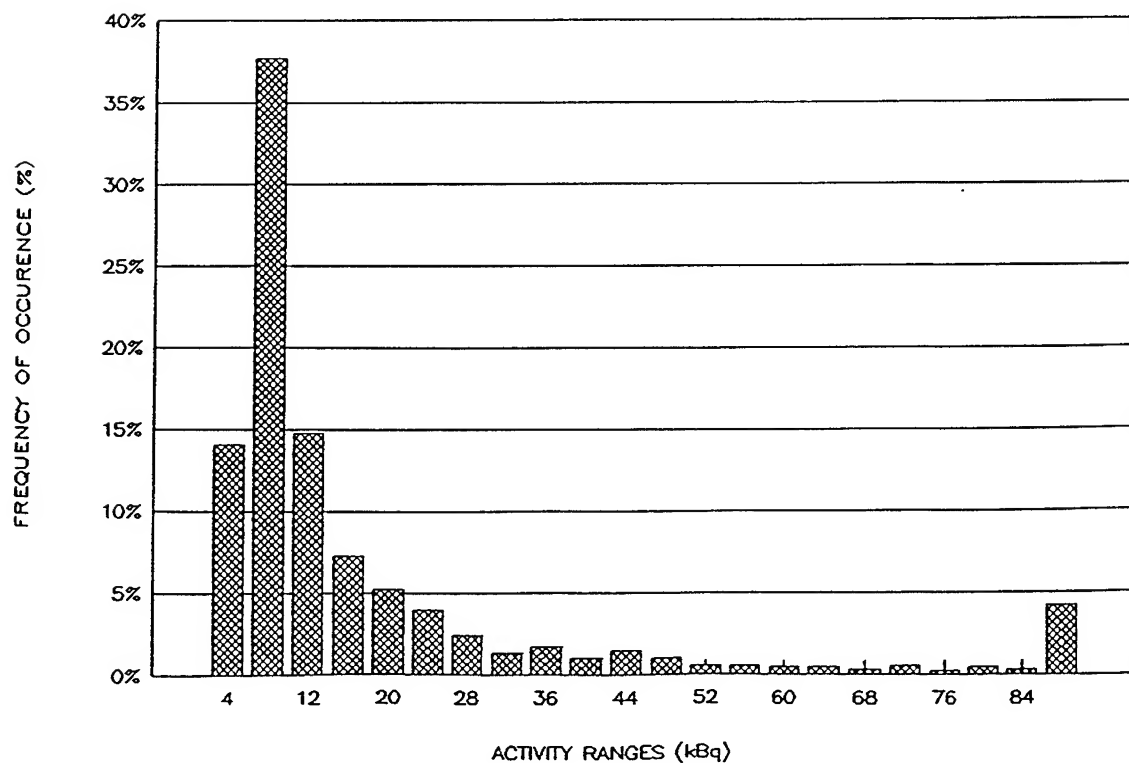
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 29-Dec-92



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 29-Dec-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 28-Dec-92

AVERAGE BACKGROUND COUNT RATE	0.68 ± 0.04 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		0.10 tons	16.8 tons
MAXIMUM/SORT		4.7 kg	53.6 kg
MINIMUM/SORT		0.7 kg	48.9 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			99.4%
EQUIVALENT SOIL-IN-GROUND	0.08 yd ³	13.3 yd ³	13.4 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	1,124 kBq		
MAXIMUM/SORT	67 kBq		
MINIMUM/SORT	2.8 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	492 kBq	329 kBq	
MINIMUM/SORT	84 kBq	12 kBq	
SPECIFIC ACTIVITY	0 Bq	-8 kBq	
	5,165 Bq/kg	20 Bq/kg	
WORK HISTORY			
WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	08:18 AM	END SOIL PROCESSING	04:56 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr
WORK HOURS		10.0 hr	
AVAILABLE HOURS		10.0 hr	
ACTUAL PROCESS HOURS (total 20-sec records)		1.75 hr	
DOWN-TIME		8.25 hr	
TOTAL SYSTEM PAUSE		8.19 hr	
NONAVAILABLE HOURS		0.0 hr	
START-UP		1.30 hr	
SHUT-DOWN		0.56 hr	
PLANT PERFORMANCE		17.5%	
PRODUCTIVITY		17.5%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)		406	
NONPROCESS RECORDS (Test, calibration, etc)		9	
20-SEC PROCESS RECORDS		315	
TOTAL SORT		0 MD>0 & MND=0	
NO SORT		241 AD=0 & MD=0 & MND>0	
SOME SORT		74 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS		0	
0<AD<1kBq & MD>0	0		UNEXPLAIN PAUSE
AD=0 & MD	0		TIME TIME
AD<0 & MD	0		None 07:02
ACT_P <5 kBq	24 26.4%		09:12

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS

ERR

15:26

2-SEC RECORDS WITH SORTS

91 (ACT_P >0 kBq)

16:57

2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	23	85.2%
3 DETECTORS	4	14.8%
4 DETECTORS	0	0.0%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%

TOTAL 27

NET 2-SEC RECORDS WITH SORTS

64

2-SEC PERIODS WITH NO SORTS

ERR

AVG TIME BETWEEN 2-SEC SORTS

ERR sec

1-GATE SORTS	43	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	0	0.0%	-14000	0	-261	4000	11	12.1%
2	3	7.0%	-12000	0	-224	8000	39	42.9%
3	4	9.3%	-10000	1	-187	12000	15	16.5%
4	6	14.0%	-8000	2	-149	16000	8	8.8%
5	10	23.3%	-6000	2	-112	20000	5	5.5%
6	10	23.3%	-4000	16	-75	24000	1	1.1%
7	9	20.9%	-2000	47	-37	28000	3	3.3%
8	1	2.3%	0	67	0	32000	1	1.1%
TOTAL	43		2000	74	37	36000	0	0.0%
			4000	57	75	40000	3	3.3%
2-GATE SORTS	48	6000	33	112	44000	0	0.0%	44
DETECTR	SORTS	FREQ%	8000	15	149	48000	1	1.1%
8			10000	8	187	52000	1	1.1%
9	1	2.1%	12000	2	224	56000	1	1.1%
10	5	10.4%	14000	0	261	60000	0	0.0%
11	6	12.5%	16000	0	299	64000	1	1.1%
12	11	22.9%	18000	0	336	68000	1	1.1%
13	12	25.0%	20000	0	373	72000	0	0.0%
14	9	18.8%	22000	0	410	76000	0	0.0%
15	4	8.3%	24000	0	448	80000	0	0.0%
TOTAL	48		26000	0	485	84000	0	0.0%
			>28000	0	0	>84000	0	0.0%
			TOTAL	324		TOTAL	91	

SUMMARY TOTALS

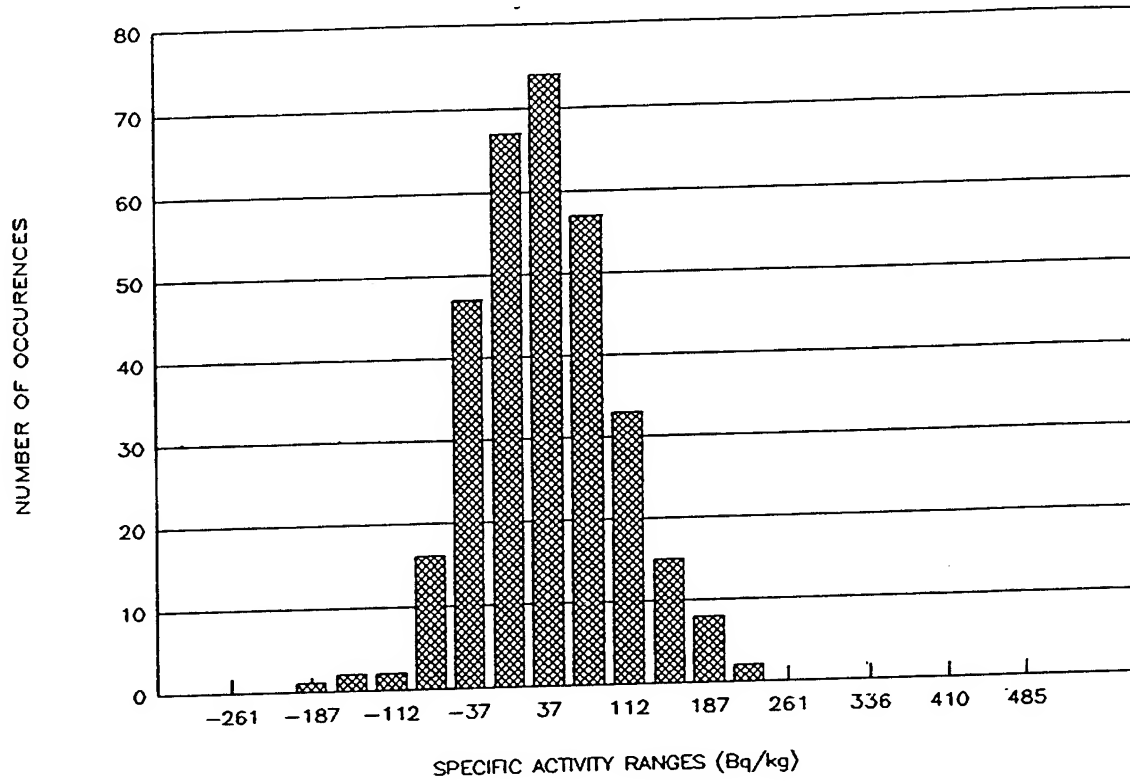
HOT PARTICLE EVENTS	93	SORTS BY ONE GATE ONLY	43
MULTIPARTICLE EVENTS	49	SORTS BY TWO GATES	48
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

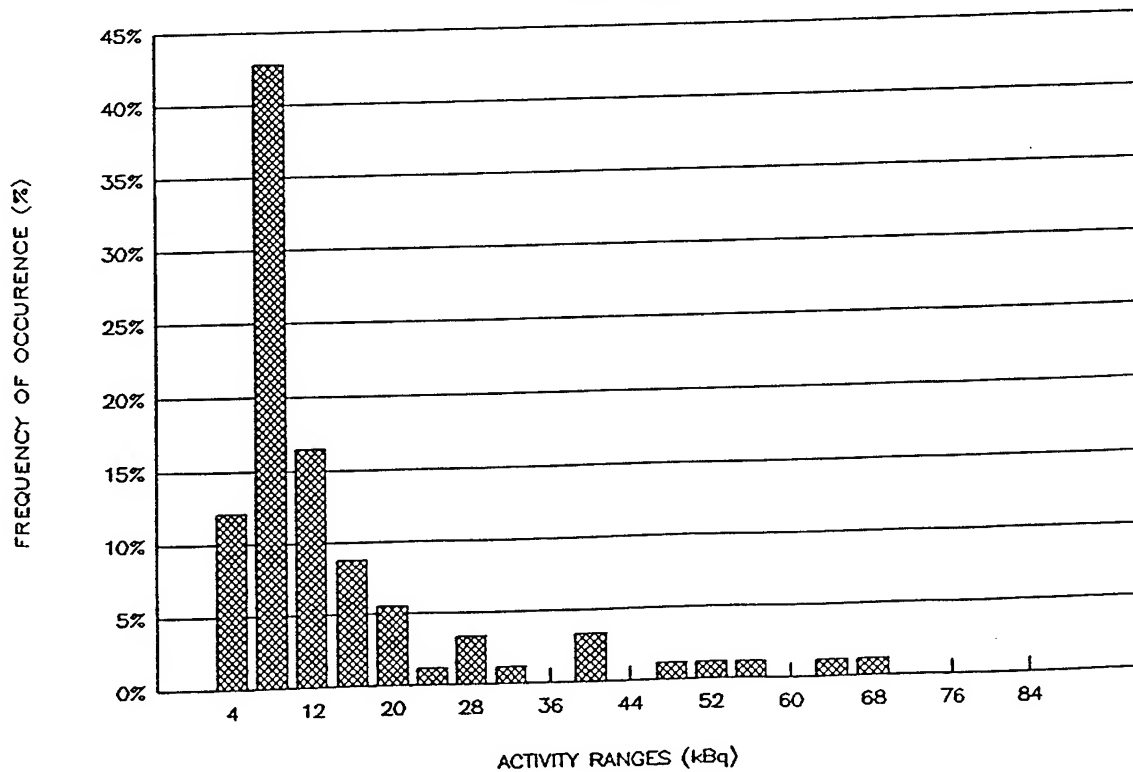
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 28-Dec-92



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 28-Dec-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 26-Dec-92

AVERAGE BACKGROUND COUNT RATE 0.69 p 0.03 c/sec
 SORTER SOIL DENSITY 1.15 tons/mJ
 GROUND SOIL DENSITY 1.65 tons/mJ

	CONTAMINATED	CLEAN	
MASS TOTAL	0.09 tons	32.0 tons	
MAXIMUM/SORT	4 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	49.5 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.7%
EQUIVALENT SOIL-IN-GROUND	0.07 ydJ	25.4 ydJ	25.4 ydJ/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	1,863 kBq
MAXIMUM/SORT	188 kBq
MINIMUM/SORT	2.6 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	736 kBq	(289)kBq
MAXIMUM/SORT	107 kBq	13 kBq
MINIMUM/SORT	0 Bq	-10 kBq
SPECIFIC ACTIVITY	7,937 Bq/kg	(9)Bq/kg

WORK HISTORY

WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	01:34 PM	END SOIL PROCESSING	04:53 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	10.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	3.33 hr
DOWN-TIME	6.67 hr
TOTAL SYSTEM PAUSE	0.86 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	6.57 hr
SHUT-DOWN	0.61 hr
PLANT PERFORMANCE	33.3%
PRODUCTIVITY	33.3%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	686
NONPROCESS RECORDS (Test, calibration, etc)	10

20-SEC PROCESS RECORDS	599		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	526 AD=0 & MD=0 & MND>0		
SOME SORT	73 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	0	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	None	12:54
ACT_P <5 kBq	23 26.4%		16:55

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS
 2-SEC RECORDS WITH SORTS ERR
 87 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 23 74.2%
 3 DETECTORS 7 22.6%
 4 DETECTORS 1 3.2%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 31
 NET 2-SEC RECORDS WITH SORTS 56
 2-SEC PERIODS WITH NO SORTS ERR
 AVG TIME BETWEEN 2-SEC SORTS ERR sec

1-GATE SORTS		45	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	3	6.7%	-14000	0	-261	4000	13	14.9%	4
2	10	22.2%	-12000	2	-224	8000	30	34.5%	8
3	4	8.9%	-10000	1	-187	12000	17	19.5%	12
4	3	6.7%	-8000	7	-149	16000	7	8.0%	16
5	12	26.7%	-6000	11	-112	20000	5	5.7%	20
6	6	13.3%	-4000	63	-75	24000	1	1.1%	24
7	5	11.1%	-2000	121	-37	28000	2	2.3%	28
8	2	4.4%	0	159	0	32000	2	2.3%	32
TOTAL	45		2000	128	37	36000	0	0.0%	36
			4000	73	75	40000	0	0.0%	40
			6000	20	112	44000	1	1.1%	44
2-GATE SORTS		42	8000	12	149	48000	0	0.0%	48
DETECTR	SORTS	FREQ%	10000	9	187	52000	1	1.1%	52
8			12000	1	224	56000	0	0.0%	56
9	5	11.9%	14000	2	261	60000	0	0.0%	60
10	7	16.7%	16000	0	299	64000	0	0.0%	64
11	6	14.3%	18000	0	336	68000	0	0.0%	68
12	7	16.7%	20000	0	373	72000	0	0.0%	72
13	9	21.4%	22000	0	410	76000	0	0.0%	76
14	4	9.5%	24000	0	448	80000	0	0.0%	80
15	4	9.5%	26000	0	485	84000	0	0.0%	84
TOTAL	42		>28000	0	0	>84000	8	9.2%	>84
			TOTAL	609		TOTAL	87		

SUMMARY TOTALS

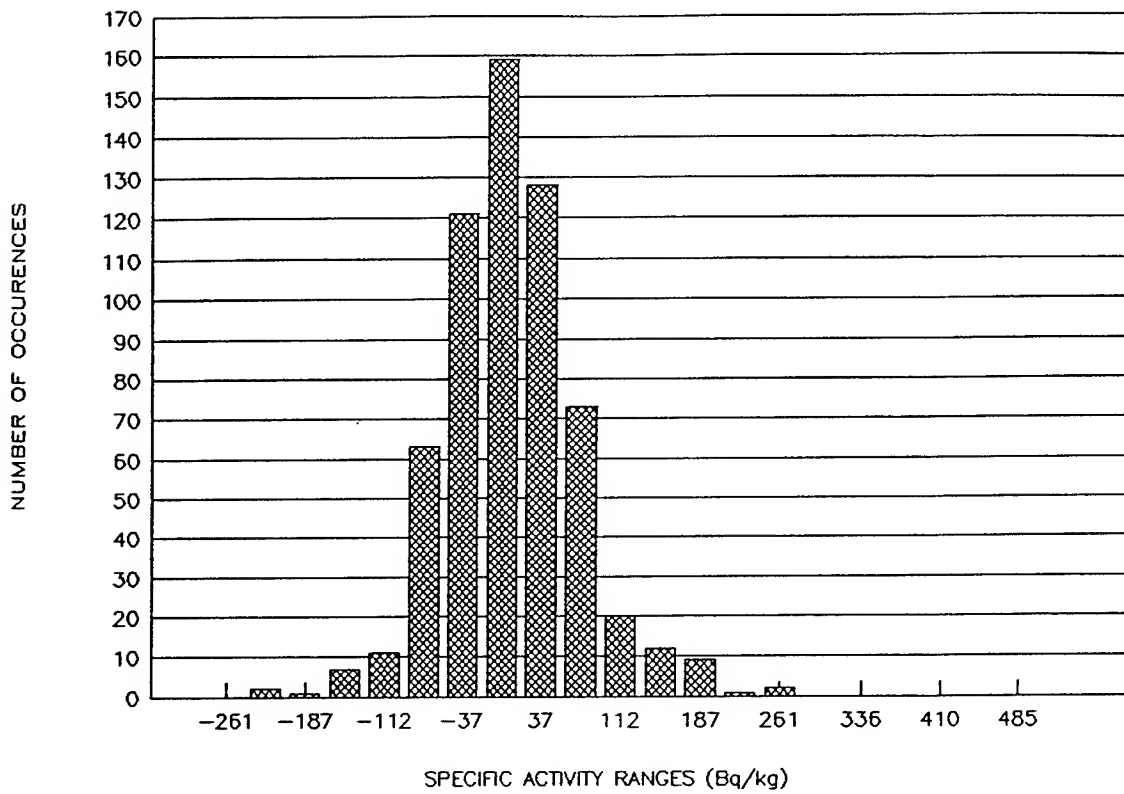
HOT PARTICLE EVENTS	80	SORTS BY ONE GATE ONLY	45
MULTIPARTICLE EVENTS	58	SORTS BY TWO GATES	42
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1-LOG DATA FOR 26-Dec-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 21-Nov-92

AVERAGE BACKGROUND COUNT RATE 0.70 p 0.04 c/sec
 SORTER SOIL DENSITY 1.15 tons/mJ
 GROUND SOIL DENSITY 1.65 tons/mJ

	CONTAMINATED	CLEAN
MASS TOTAL	0.14 tons	7.6 tons
MAXIMUM/SORT	4.7 kg	53.6 kg
MINIMUM/SORT	0.7 kg	48.9 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		98.1%
EQUIVALENT SOIL-IN-GROUND	0.11 ydJ	6.0 ydJ 6.1 ydJ/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	2,834 kBq
MAXIMUM/SORT	395 kBq
MINIMUM/SORT	2.8 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	1,015 kBq	1,198 kBq
MAXIMUM/SORT	224 kBq	18 kBq
MINIMUM/SORT	0 Bq	-7 kBq
SPECIFIC ACTIVITY	7,042 Bq/kg	158 Bq/kg

WORK HISTORY		
WORK DAY START	07:00 AM	WORK DAY END 05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN 05:30 PM
START SOIL PROCESSING	08:22 AM	END SOIL PROCESSING 09:09 AM
LUNCH START	11:30 AM	LUNCH PERIOD 0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	10.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	0.80 hr
DOWN-TIME	9.20 hr
TOTAL SYSTEM PAUSE	8.39 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	1.37 hr
SHUT-DOWN	8.33 hr
PLANT PERFORMANCE	8.0%
PRODUCTIVITY	8.0%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	271
NONPROCESS RECORDS (Test, calibration, etc)	10

20-SEC PROCESS RECORDS	144
TOTAL SORT	0 MD>0 & MND=0
NO SORT	58 AD=0 & MD=0 & MND>0
SOME SORT	86 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	0
AD=0 & MD	0
AD<0 & MD	0
ACT_P <5 kBq	18 14.2%

UNEXPLAIN	PAUSE
TIME	TIME
None	07:00
	09:10

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS ERR
 2-SEC RECORDS WITH SORTS 127 (ACT_P >0 kBq)
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 26 72.2%
 3 DETECTORS 8 22.2%
 4 DETECTORS 2 5.6%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 36
 NET 2-SEC RECORDS WITH SORTS 91
 2-SEC PERIODS WITH NO SORTS ERR
 AVG TIME BETWEEN 2-SEC SORTS ERR sec

1-GATE SORTS DETECTR	SORTS	67 FREQ%	ACT_ND (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT FREQ% (#)	ACT_P (kBq)
1	1	1.5%	-14000	0	-261	4000	2 1.6%	4
2	7	10.4%	-12000	0	-224	8000	57 44.9%	8
3	6	9.0%	-10000	0	-187	12000	28 22.0%	12
4	10	14.9%	-8000	1	-149	16000	13 10.2%	16
5	13	19.4%	-6000	2	-112	20000	7 5.5%	20
6	14	20.9%	-4000	3	-75	24000	2 1.6%	24
7	10	14.9%	-2000	1	-37	28000	0 0.0%	28
8	6	9.0%	0	5	0	32000	2 1.6%	32
TOTAL	67		2000	2	37	36000	2 1.6%	36
			4000	12	75	40000	2 1.6%	40
2-GATE SORTS		60	6000	18	112	44000	1 0.8%	44
DETECTR	SORTS	FREQ%	8000	36	149	48000	0 0.0%	48
8			10000	31	187	52000	1 0.8%	52
9	5	8.3%	12000	17	224	56000	0 0.0%	56
10	6	10.0%	14000	14	261	60000	2 1.6%	60
11	7	11.7%	16000	8	299	64000	0 0.0%	64
12	12	20.0%	18000	3	336	68000	0 0.0%	68
13	12	20.0%	20000	1	373	72000	0 0.0%	72
14	12	20.0%	22000	0	410	76000	0 0.0%	76
15	6	10.0%	24000	0	448	80000	0 0.0%	80
TOTAL	60		26000	0	485	84000	0 0.0%	84
			>28000	0	0	>84000	8 6.3%	>84
			TOTAL	154		TOTAL	127	

SUMMARY TOTALS

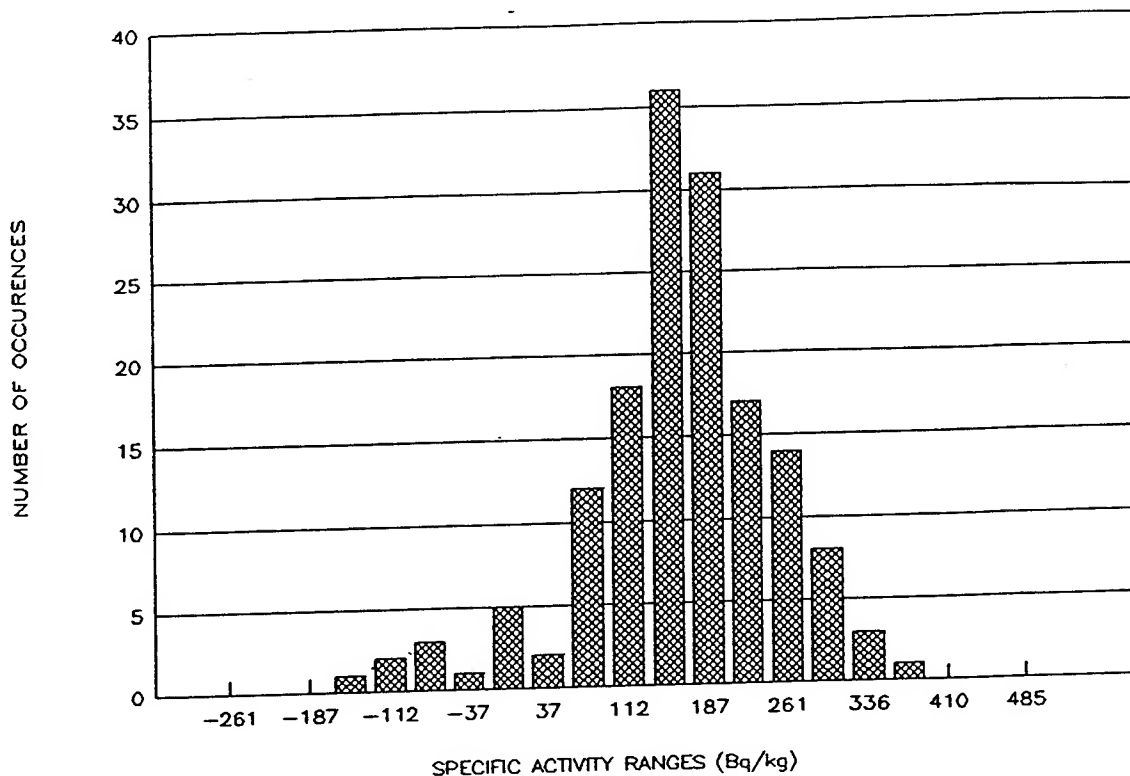
HOT PARTICLE EVENTS	125	SORTS BY ONE GATE ONLY	67
MULTIPARTICLE EVENTS	91	SORTS BY TWO GATES	60
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

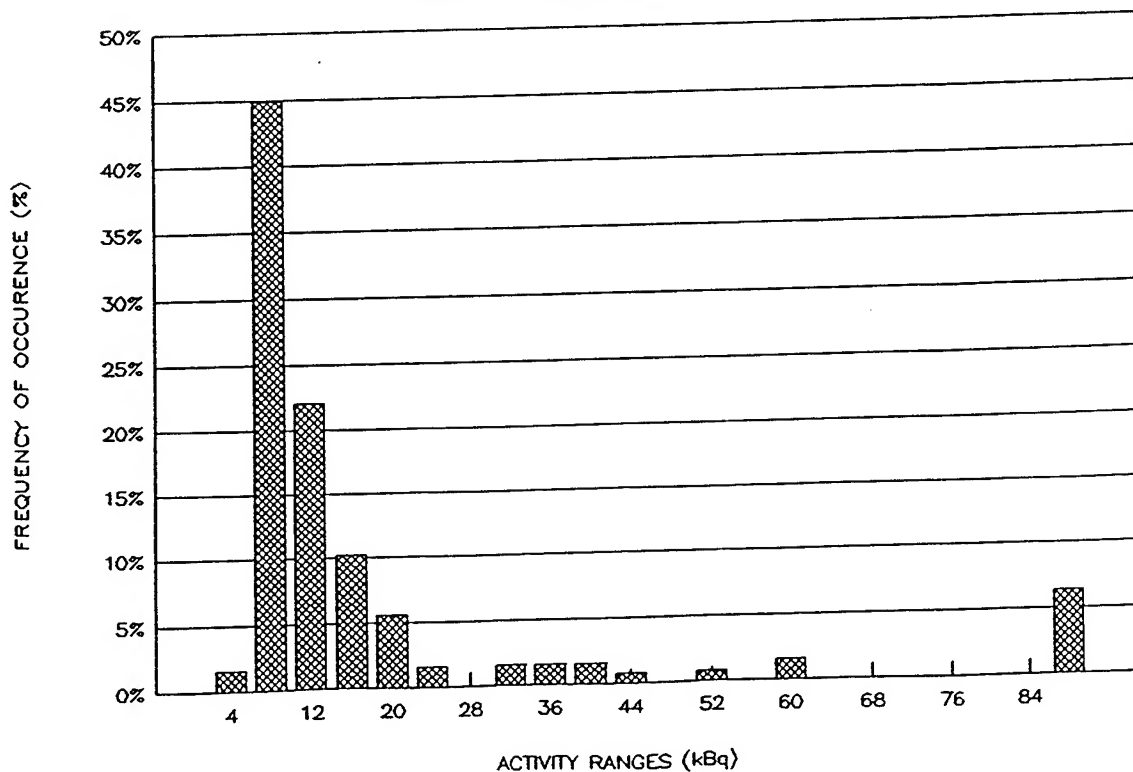
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 21-Nov-92



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 21-Nov-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 21-Nov-92

AVERAGE BACKGROUND COUNT RATE 0.74 p 0.07 c/sec
 SORTER SOIL DENSITY 1.15 tons/mJ
 GROUND SOIL DENSITY 1.65 tons/mJ

	CONTAMINATED	CLEAN	
MASS TOTAL	0.67 tons	7.2 tons	
MAXIMUM/SORT	53.6 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	44.2 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			91.4%
EQUIVALENT SOIL-IN-GROUND	0.53 ydJ	5.7 ydJ	6.2 ydJ/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	3,722 kBq
MAXIMUM/SORT	209 kBq
MINIMUM/SORT	3.4 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

	1,694 kBq	1,542 kBq
MAXIMUM/SORT	140 kBq	19 kBq
MINIMUM/SORT	0 Bq	-3 kBq
SPECIFIC ACTIVITY	2,530 Bq/kg	216 Bq/kg

WORK HISTORY

WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	08:22 AM	END SOIL PROCESSING	09:10 AM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	10.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	0.81 hr
DOWN-TIME	9.19 hr
TOTAL SYSTEM PAUSE	8.39 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	1.37 hr
SHUT-DOWN	8.32 hr
PLANT PERFORMANCE	8.1%
PRODUCTIVITY	8.1%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 330

NONPROCESS RECORDS (Test, calibration, etc) 8

20-SEC PROCESS RECORDS

TOTAL SORT	9 MD>0 & MND=0
NO SORT	44 AD=0 & MD=0 & MND>0
SOME SORT	93 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0

		UNEXPLAIN	PAUSE
		TIME	TIME
0<AD<1kBq & MD>0	0	None	07:00
AD=0 & MD	0		
AD<0 & MD	0		
ACT_P <5 kBq	23 12.5%		09:10

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS
 2-SEC RECORDS WITH SORTS
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 49 76.6%
 3 DETECTORS 12 18.8%
 4 DETECTORS 2 3.1%
 5 DETECTORS 1 1.6%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 64
 NET 2-SEC RECORDS WITH SORTS 120
 2-SEC PERIODS WITH NO SORTS ERR
 AVG TIME BETWEEN 2-SEC SORTS ERR sec

1-GATE SORTS	97	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBg)
1	9	9.3%	-14000	0	-261	4000	3	1.6%
2	21	21.6%	-12000	0	-224	8000	74	40.2%
3	18	18.6%	-10000	0	-187	12000	30	16.3%
4	16	16.5%	-8000	1	-149	16000	24	13.0%
5	12	12.4%	-6000	0	-112	20000	7	3.8%
6	13	13.4%	-4000	1	-75	24000	5	2.7%
7	7	7.2%	-2000	1	-37	28000	8	4.3%
8	1	1.0%	0	16	0	32000	3	1.6%
TOTAL	97		2000	3	37	36000	6	3.3%
			4000	3	75	40000	2	1.1%
2-GATE SORTS	87		6000	5	112	44000	1	0.5%
DETECTR	SORTS	FREQ%	8000	14	149	48000	1	0.5%
8			10000	15	187	52000	2	1.1%
9	15	17.2%	12000	30	224	56000	2	1.1%
10	15	17.2%	14000	29	261	60000	3	1.6%
11	19	21.8%	16000	20	299	64000	1	0.5%
12	15	17.2%	18000	10	336	68000	1	0.5%
13	11	12.6%	20000	6	373	72000	0	0.0%
14	9	10.3%	22000	0	410	76000	1	0.5%
15	3	3.4%	24000	0	448	80000	1	0.5%
TOTAL	87		26000	0	485	84000	0	0.0%
			>28000	0	0	>84000	9	4.9%
			TOTAL	154		TOTAL	184	

SUMMARY TOTALS

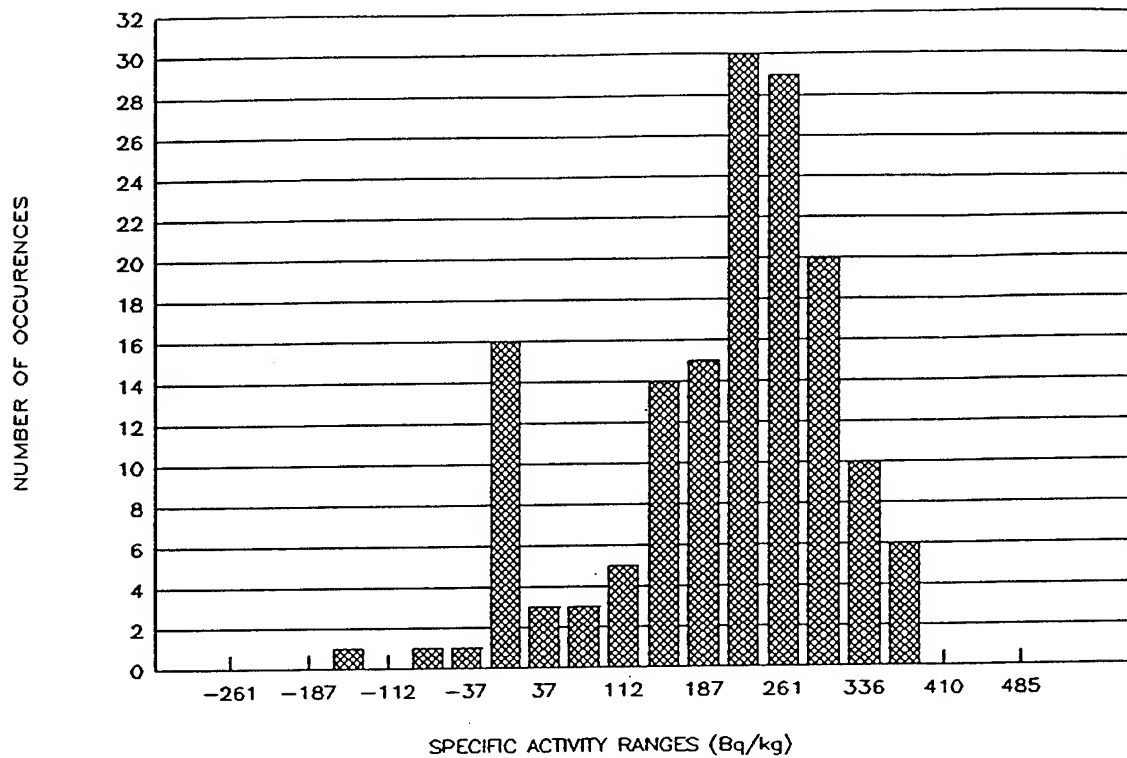
HOT PARTICLE EVENTS	167	SORTS BY ONE GATE ONLY	97
MULTIPARTICLE EVENTS	140	SORTS BY TWO GATES	87
DISTRIBUTED EVENTS	693		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

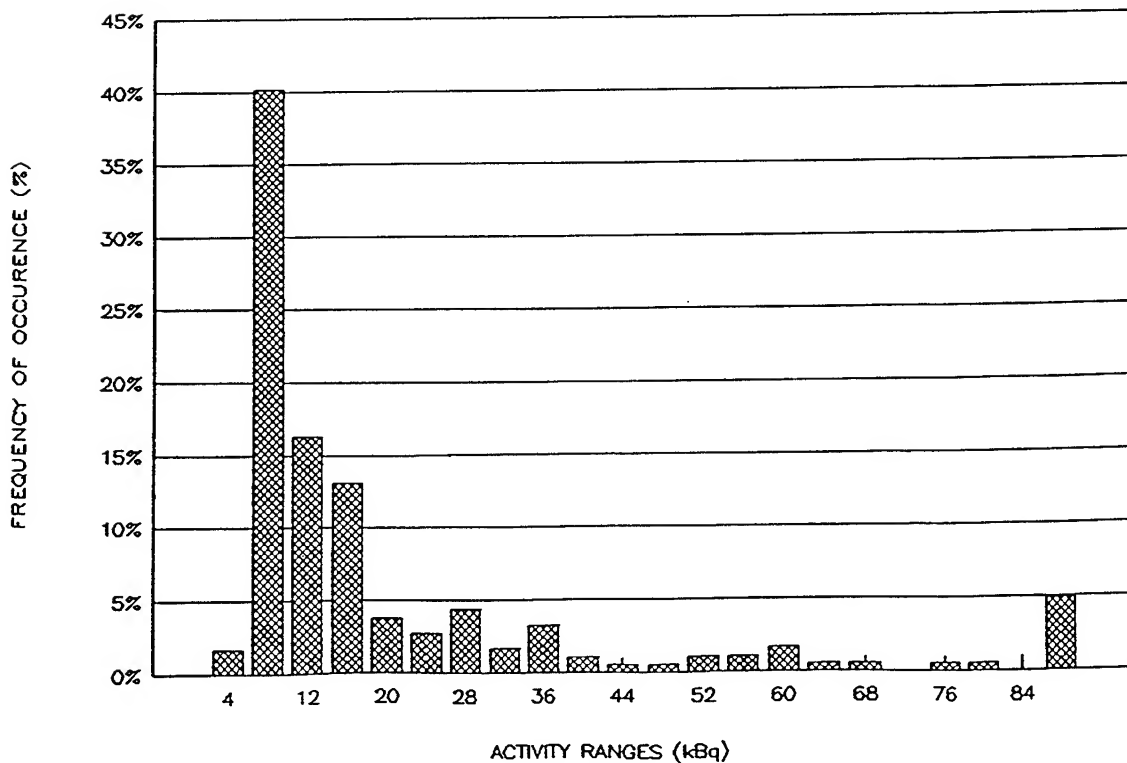
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 21-Nov-92



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 21-Nov-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 20-Nov-92

AVERAGE BACKGROUND COUNT RATE

0.72 p 0.08 c/sec

SORTER SOIL DENSITY

1.15 tons/mJ

GROUND SOIL DENSITY

1.65 tons/mJ

MASS TOTAL

CONTAMINATED

CLEAN

0.28 tons

14.6 tons

MAXIMUM/SORT

53.6 kg

53.6 kg

MINIMUM/SORT

0.7 kg

49.5 kg

WEIGHT RECOVERY OR VOLUME RECOVERY

98.1%

EQUIVALENT SOIL-IN-GROUND

0.22 ydJ

11.5 ydJ

11.8 ydJ/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL

2,668 kBq

MAXIMUM/SORT

647 kBq

MINIMUM/SORT

3.5 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

1,007 kBq

1,970 kBq

MAXIMUM/SORT

316 kBq

19 kBq

MINIMUM/SORT

0 Bq

-9 kBq

SPECIFIC ACTIVITY

3,555 Bq/kg

135 Bq/kg

WORK HISTORY

WORK DAY START

07:00 AM

WORK DAY END

05:30 PM

PLANT START-UP

07:00 AM

PLANT SHUT-DOWN

05:30 PM

START SOIL PROCESSING

10:40 AM

END SOIL PROCESSING

04:07 PM

LUNCH START

11:30 AM

LUNCH PERIOD

0.5 hr

WORK HOURS

10.0 hr

AVAILABLE HOURS

10.0 hr

ACTUAL PROCESS HOURS (total 20-sec records)

1.54 hr

DOWN-TIME

8.46 hr

TOTAL SYSTEM PAUSE

7.50 hr

NONAVAILABLE HOURS

0.0 hr

START-UP

3.68 hr

SHUT-DOWN

1.37 hr

PLANT PERFORMANCE

15.4%

PRODUCTIVITY

15.4%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)

421

NONPROCESS RECORDS (Test, calibration, etc)

16

20-SEC PROCESS RECORDS

277

TOTAL SORT

2 MD>0 & MND=0

NO SORT

145 AD=0 & MD=0 & MND>0

SOME SORT

130 AD>0&0<MD<MNDmax&MND<MNDmax

UNEXPLAINED RECORDS

0

0<AD<1kBq & MD>0

0

UNEXPLAIN

PAUSE

AD=0 & MD

0

TIME

TIME

AD<0 & MD

0

None

07:04

ACT_P <5 kBq

26

18.1%

11:30

JA SOIL CLEANUP PLANT LOG SUMMARY

15:16

2-SEC COUNT PERIODS

ERR

2-SEC RECORDS WITH SORTS

144 (ACT_P >0 kBq)

2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	33	84.6%
3 DETECTORS	6	15.4%
4 DETECTORS	0	0.0%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%

TOTAL 39

NET 2-SEC RECORDS WITH SORTS

105

2-SEC PERIODS WITH NO SORTS

ERR

AVG TIME BETWEEN 2-SEC SORTS

ERR sec

1-GATE SORTS	69	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#) (Bq/kg)	(Bq)	(#)		(kBq)
1	4	5.8%	-14000	0	-261	4000	3	2.1%
2	11	15.9%	-12000	1	-224	8000	75	52.1%
3	9	13.0%	-10000	1	-187	12000	31	21.5%
4	11	15.9%	-8000	2	-149	16000	10	6.9%
5	8	11.6%	-6000	3	-112	20000	4	2.8%
6	11	15.9%	-4000	2	-75	24000	7	4.9%
7	10	14.5%	-2000	3	-37	28000	3	2.1%
8	5	7.2%	0	27	0	32000	2	1.4%
TOTAL	69		2000	25	37	36000	5	3.5%
			4000	35	75	40000	0	0.0%
2-GATE SORTS	75		6000	34	112	44000	0	0.0%
DETECTR	SORTS	FREQ%	8000	37	149	48000	0	0.0%
8			10000	34	187	52000	1	0.7%
9	10	13.3%	12000	33	224	56000	0	0.0%
10	15	20.0%	14000	32	261	60000	0	0.0%
11	11	14.7%	16000	13	299	64000	0	0.0%
12	13	17.3%	18000	8	336	68000	0	0.0%
13	7	9.3%	20000	3	373	72000	0	0.0%
14	10	13.3%	22000	0	410	76000	0	0.0%
15	9	12.0%	24000	0	448	80000	0	0.0%
TOTAL	75		26000	0	485	84000	0	0.0%
			>28000	0	0	>84000	3	2.1%
			TOTAL	293		TOTAL	144	

SUMMARY TOTALS

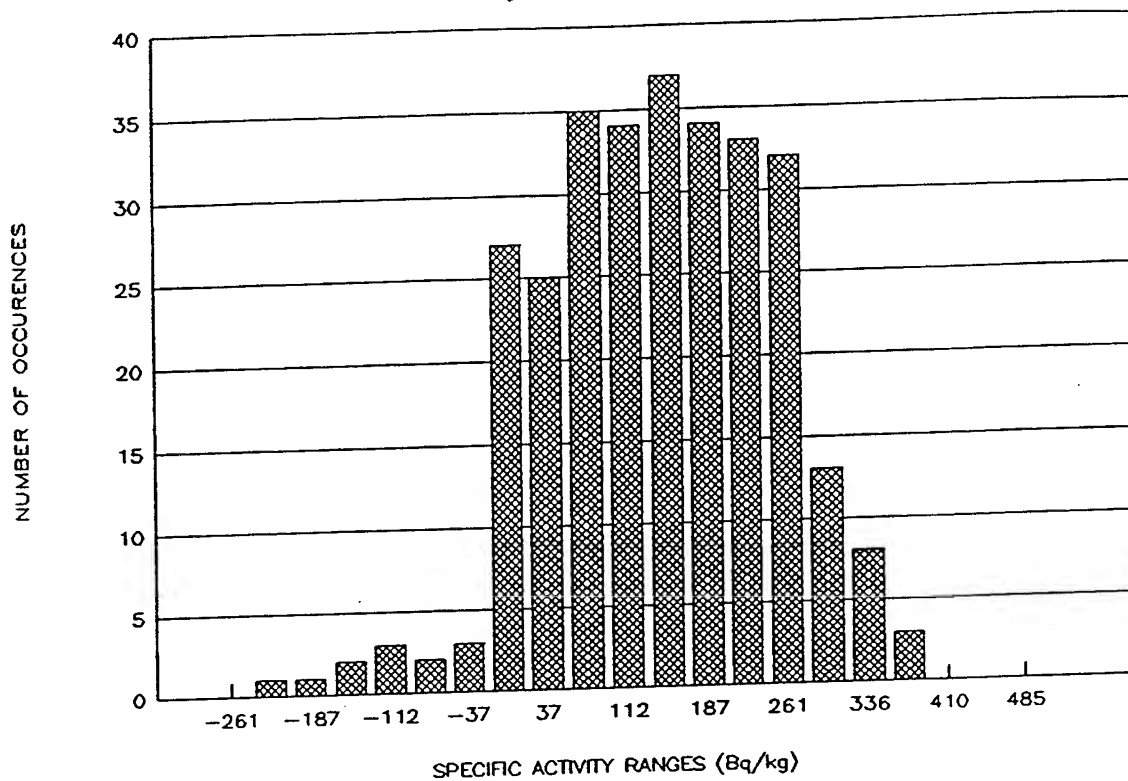
HOT PARTICLE EVENTS	149	SORTS BY ONE GATE ONLY	69
MULTIPARTICLE EVENTS	115	SORTS BY TWO GATES	75
DISTRIBUTED EVENTS	159		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

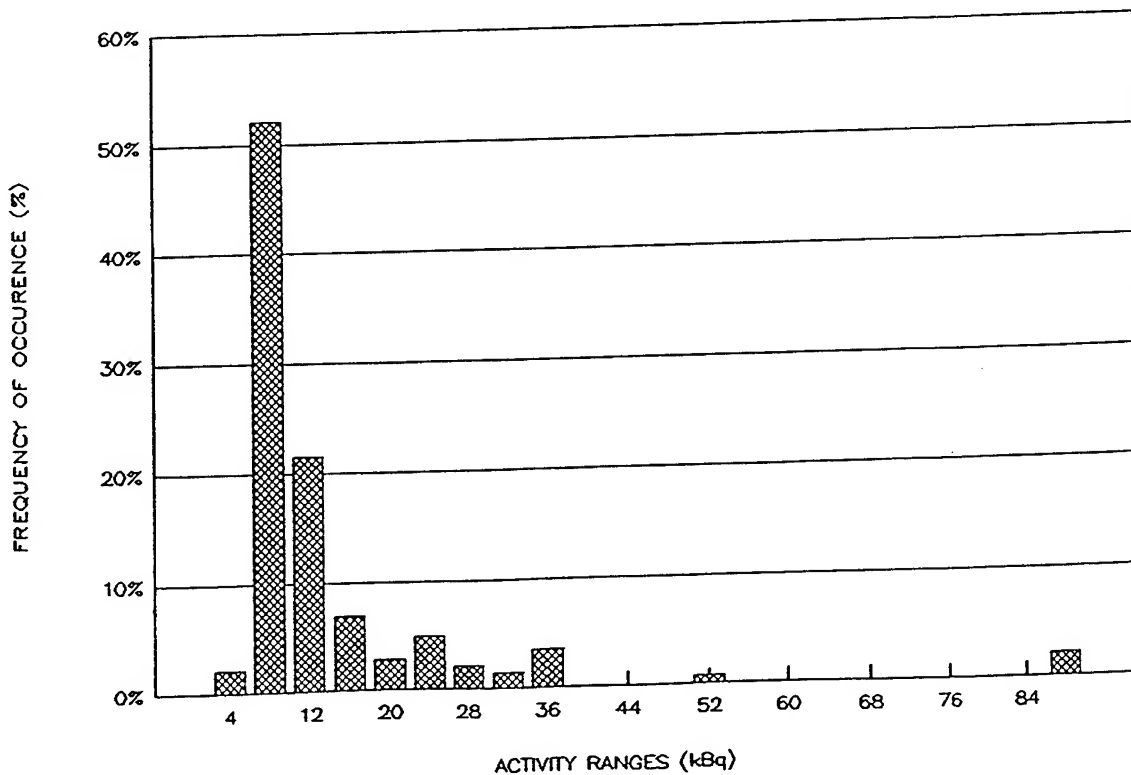
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 20-Nov-92



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 20-Nov-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 20-Nov-92

AVERAGE BACKGROUND COUNT RATE 0.75 p 0.07 c/sec
 SORTER SOIL DENSITY 1.15 tons/mJ
 GROUND SOIL DENSITY 1.65 tons/mJ

	CONTAMINATED	CLEAN
MASS TOTAL	0.59 tons	13.8 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	48.2 kg

WEIGHT RECOVERY OR VOLUME RECOVERY 95.9%
 EQUIVALENT SOIL-IN-GROUND 0.47 ydJ 10.9 ydJ 11.4 ydJ/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)
 TOTAL 3,376 kBq
 MAXIMUM/SORT 503 kBq
 MINIMUM/SORT 3.3 kBq

	1,576 kBq	2,329 kBq
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY		
MAXIMUM/SORT	316 kBq	19 kBq
MINIMUM/SORT	0 Bq	-12 kBq
SPECIFIC ACTIVITY	2,673 Bq/kg	169 Bq/kg

WORK HISTORY

WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	10:40 AM	END SOIL PROCESSING	04:06 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	10.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	1.49 hr
DOWN-TIME	8.51 hr
TOTAL SYSTEM PAUSE	7.50 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	3.68 hr
SHUT-DOWN	1.40 hr
PLANT PERFORMANCE	14.9%
PRODUCTIVITY	14.9%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 437

NONPROCESS RECORDS (Test, calibration, etc) 19

20-SEC PROCESS RECORDS		268
TOTAL SORT		7 MD>0 & MND=0
NO SORT		121 AD=0 & MD=0 & MND>0
SOME SORT		140 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS		0
0<AD<1kBq & MD>0	0	UNEXPLAIN PAUSE
AD=0 & MD	0	TIME TIME
AD<0 & MD	0	None 07:04
ACT_P <5 kBq	22 13.0%	11:30

JA SOIL CLEANUP PLANT LOG SUMMARY

15:16

2-SEC COUNT PERIODS

ERR

2-SEC RECORDS WITH SORTS

169 (ACT_P > 0 kBq)

2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	38	77.6%
3 DETECTORS	10	20.4%
4 DETECTORS	1	2.0%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%

TOTAL 49

NET 2-SEC RECORDS WITH SORTS

120

2-SEC PERIODS WITH NO SORTS

ERR

AVG TIME BETWEEN 2-SEC SORTS

ERR sec

1-GATE SORTS	85	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	5	5.9%	-14000	0	-261	4000	5	3.0%
2	11	12.9%	-12000	4	-224	8000	75	44.4%
3	12	14.1%	-10000	3	-187	12000	37	21.9%
4	19	22.4%	-8000	2	-149	16000	16	9.5%
5	14	16.5%	-6000	6	-112	20000	10	5.9%
6	11	12.9%	-4000	1	-75	24000	5	3.0%
7	10	11.8%	-2000	2	-37	28000	6	3.6%
8	3	3.5%	0	13	0	32000	4	2.4%
TOTAL	85		2000	17	37	36000	0	0.0%
			4000	21	75	40000	0	0.0%
			6000	31	112	44000	1	0.6%
2-GATE SORTS	84		8000	39	149	48000	0	0.0%
DETECTR	SORTS	FREQ%	10000	33	187	52000	0	0.0%
8			12000	41	224	56000	0	0.0%
9	10	11.9%	14000	26	261	60000	0	0.0%
10	10	11.9%	16000	33	299	64000	0	0.0%
11	18	21.4%	18000	7	336	68000	1	0.6%
12	17	20.2%	20000	8	373	72000	1	0.6%
13	12	14.3%	22000	0	410	76000	2	1.2%
14	10	11.9%	24000	0	448	80000	0	0.0%
15	7	8.3%	26000	0	485	84000	0	0.0%
TOTAL	84		>28000	0	0	>84000	6	3.6%
			TOTAL	287		TOTAL	169	

SUMMARY TOTALS

HOT PARTICLE EVENTS	170
MULTIPARTICLE EVENTS	169
DISTRIBUTED EVENTS	541

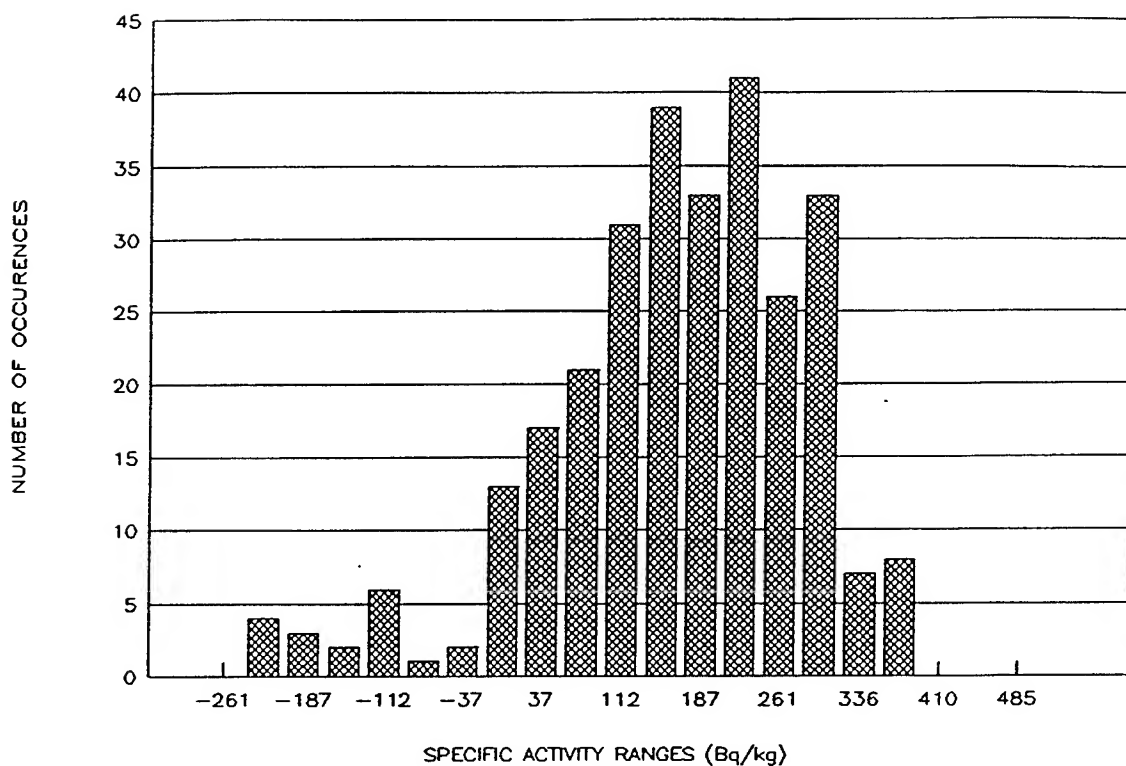
SORTS BY ONE GATE ONLY	85
SORTS BY TWO GATES	84

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

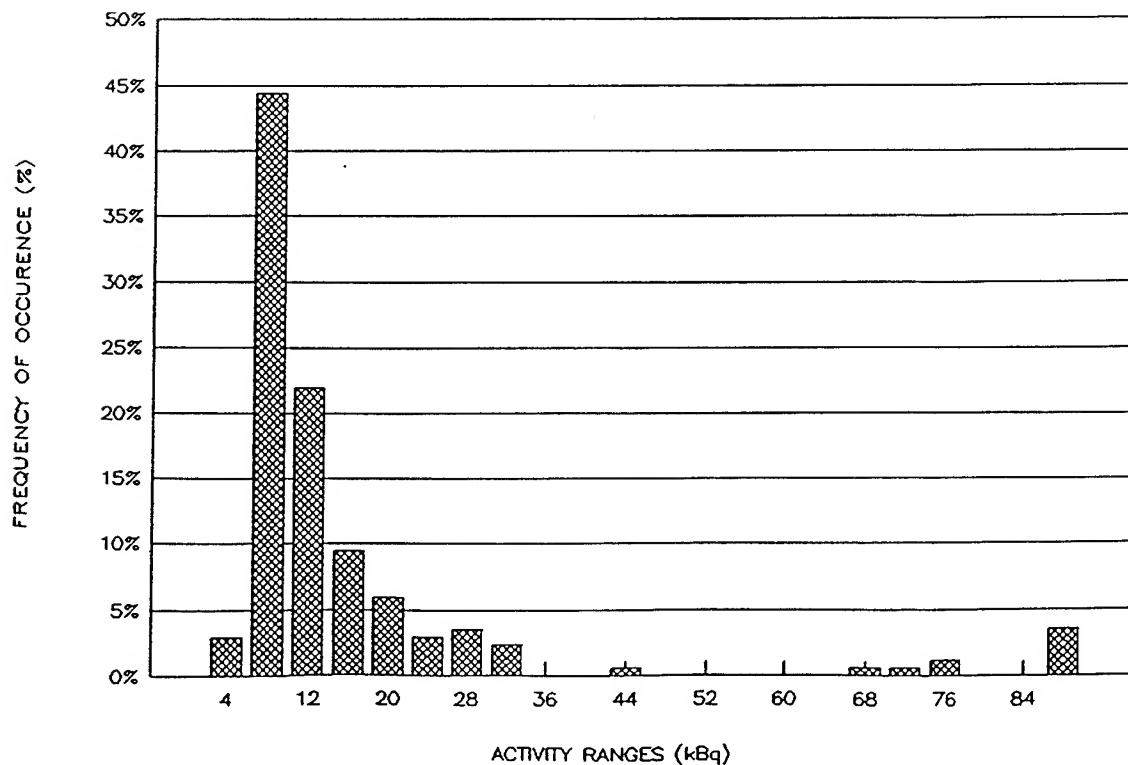
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 20-Nov-92



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 20-Nov-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 16-Nov-92

AVERAGE BACKGROUND COUNT RATE 0.78 p 0.04 c/sec
 SORTER SOIL DENSITY 1.15 tons/mJ
 GROUND SOIL DENSITY 1.65 tons/mJ

	CONTAMINATED	CLEAN	
MASS TOTAL	0.50 tons	58.0 tons	
MAXIMUM/SORT	5.4 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	48.2 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.1%
EQUIVALENT SOIL-IN-GROUND	0.40 ydU	46.0 ydU	46.4 ydU/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	11,335 kBq
MAXIMUM/SORT	478 kBq
MINIMUM/SORT	2.8 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	3,748 kBq	1,764 kBq
MAXIMUM/SORT	329 kBq	13 kBq
MINIMUM/SORT	0 Bq	-9 kBq
SPECIFIC ACTIVITY	7,495 Bq/kg	30 Bq/kg

WORK HISTORY

WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	08:14 AM	END SOIL PROCESSING	03:38 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	10.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	6.07 hr
DOWN-TIME	3.93 hr
TOTAL SYSTEM PAUSE	1.65 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	1.25 hr
SHUT-DOWN	1.85 hr
PLANT PERFORMANCE	60.7%
PRODUCTIVITY	60.7%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 1,600
 NONPROCESS RECORDS (Test, calibration, etc) 20

20-SEC PROCESS RECORDS	1,092
TOTAL SORT	0 MD>0 & MND=0
NO SORT	729 AD=0 & MD=0 & MND>0
SOME SORT	363 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	1
AD=0 & MD	0
AD<0 & MD	0
ACT_P <5 kBq	60 11.8%

UNEXPLAIN	PAUSE
TIME	TIME
15:06:22	07:56
	07:57

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS

ERR

11:13

2-SEC RECORDS WITH SORTS

508 (ACT_P >0 kBq)

12:23

2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

15:41

2 DETECTORS	118	72.8%
3 DETECTORS	34	21.0%
4 DETECTORS	9	5.6%
5 DETECTORS	1	0.6%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%

TOTAL 162

NET 2-SEC RECORDS WITH SORTS 346

2-SEC PERIODS WITH NO SORTS ERR

AVG TIME BETWEEN 2-SEC SORTS ERR sec

1-GATE SORTS DETECTR	SORTS	252 FREQ%	ACT_ND (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT FREQ%	ACT_P (kBq)
1	2	0.8%	-14000	0	-261	4000	17 3.3%	4
2	16	6.3%	-12000	1	-224	8000	213 41.9%	8
3	37	14.7%	-10000	4	-187	12000	84 16.5%	12
4	49	19.4%	-8000	7	-149	16000	41 8.1%	16
5	56	22.2%	-6000	18	-112	20000	30 5.9%	20
6	48	19.0%	-4000	38	-75	24000	16 3.1%	24
7	34	13.5%	-2000	113	-37	28000	16 3.1%	28
8	10	4.0%	0	199	0	32000	11 2.2%	32
TOTAL	252		2000	233	37	36000	5 1.0%	36
			4000	215	75	40000	9 1.8%	40
2-GATE SORTS	256		6000	167	112	44000	12 2.4%	44
DETECTR	SORTS	FREQ%	8000	69	149	48000	7 1.4%	48
8			10000	29	187	52000	4 0.8%	52
9	6	2.3%	12000	14	224	56000	3 0.6%	56
10	25	9.8%	14000	5	261	60000	4 0.8%	60
11	42	16.4%	16000	0	299	64000	2 0.4%	64
12	51	19.9%	18000	0	336	68000	4 0.8%	68
13	59	23.0%	20000	0	373	72000	3 0.6%	72
14	46	18.0%	22000	0	410	76000	4 0.8%	76
15	27	10.5%	24000	0	448	80000	1 0.2%	80
TOTAL	256		26000	0	485	84000	3 0.6%	84
			>28000	0	0	>84000	19 3.7%	>84
			TOTAL	1112		TOTAL	508	

SUMMARY TOTALS

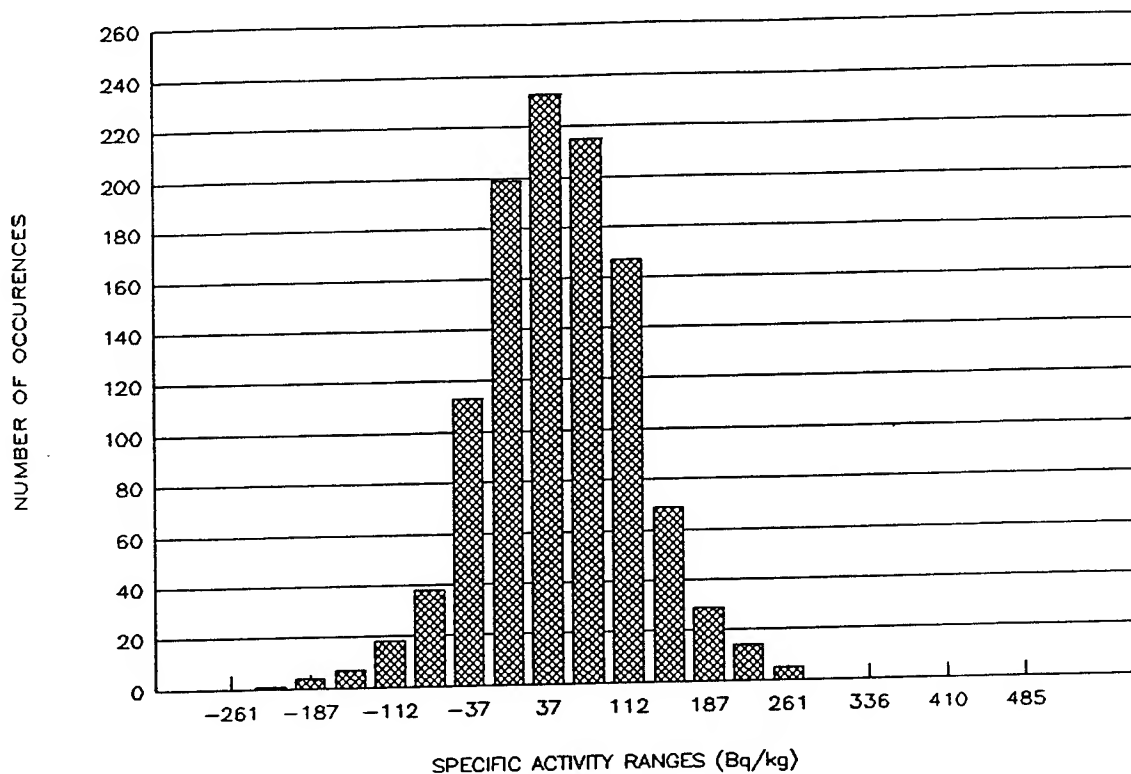
HOT PARTICLE EVENTS	492	SORTS BY ONE GATE ONLY	252
MULTIPARTICLE EVENTS	256	SORTS BY TWO GATES	256
DISTRIBUTED EVENTS	0		

REC CODE EXPLANATION

1.00 Source check (Soil on belt)
 2.00 Empty belt
 3.00 Test (No process soil)

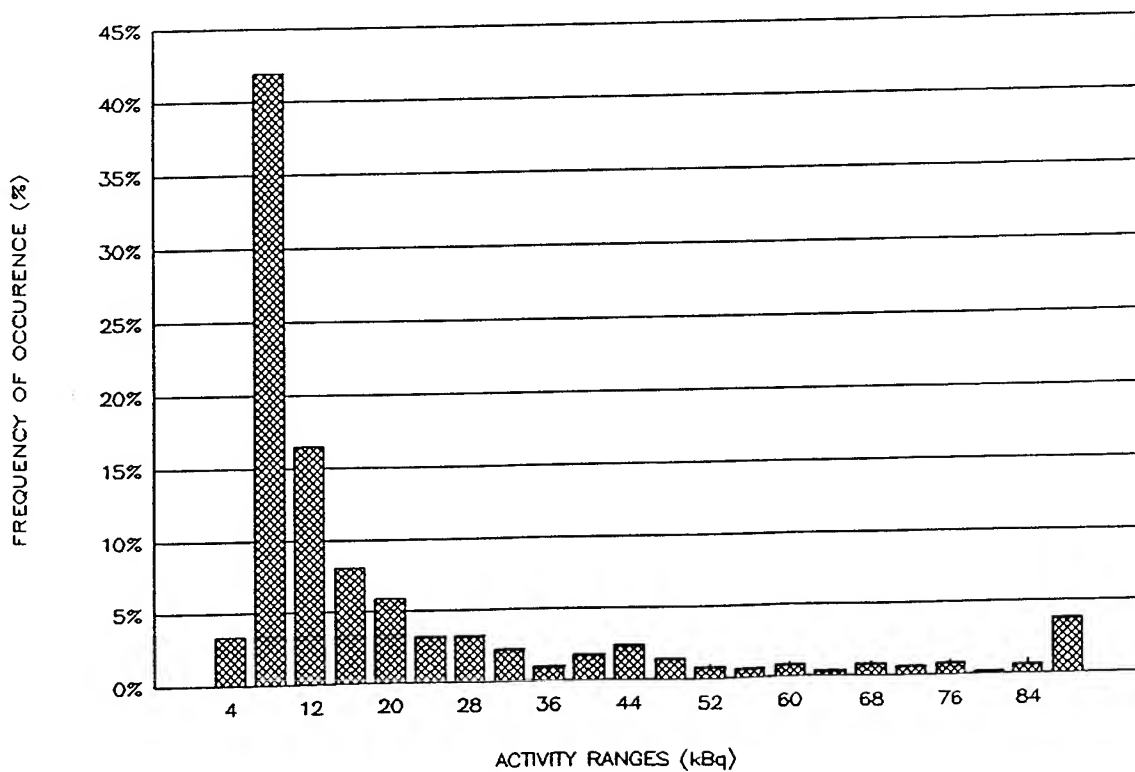
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 16-Nov-92



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 16-Nov-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 16-Nov-92

AVERAGE BACKGROUND COUNT RATE 0.81 p 0.06 c/sec
 SORTER SOIL DENSITY 1.15 tons/mU
 GROUND SOIL DENSITY 1.65 tons/mU

	CONTAMINATED	CLEAN
MASS TOTAL	0.45 tons	58.3 tons
MAXIMUM/SORT	4.7 kg	53.6 kg
MINIMUM/SORT	0.7 kg	48.9 kg
WEIGHT RECOVERY OR VOLUME RECOVERY		99.2%
EQUIVALENT SOIL-IN-GROUND	0.36 ydU	46.2 ydU 46.6 ydU/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	6,255 kBq
MAXIMUM/SORT	233 kBq
MINIMUM/SORT	2.9 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	2,591 kBq	3,503 kBq
MAXIMUM/SORT	151 kBq	15 kBq
MINIMUM/SORT	0 Bq	-8 kBq
SPECIFIC ACTIVITY	5,701 Bq/kg	60 Bq/kg

WORK HISTORY

WORK DAY START	07:00 AM	WORK DAY END	05:30 PM
PLANT START-UP	07:00 AM	PLANT SHUT-DOWN	05:30 PM
START SOIL PROCESSING	08:14 AM	END SOIL PROCESSING	03:39 PM
LUNCH START	11:30 AM	LUNCH PERIOD	0.5 hr

WORK HOURS	10.0 hr
AVAILABLE HOURS	10.0 hr
ACTUAL PROCESS HOURS (total 20-sec records)	6.09 hr
DOWN-TIME	3.91 hr
TOTAL SYSTEM PAUSE	3.22 hr
NONAVAILABLE HOURS	0.0 hr
START-UP	1.25 hr
SHUT-DOWN	1.84 hr
PLANT PERFORMANCE	60.9%
PRODUCTIVITY	60.9%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	1,480
NONPROCESS RECORDS (Test, calibration, etc)	18

20-SEC PROCESS RECORDS

TOTAL SORT	0 MD>0 & MND=0
NO SORT	751 AD=0 & MD=0 & MND>0
SOME SORT	346 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0

0<AD<1kBq & MD>0	1	UNEXPLAIN	PAUSE
AD=0 & MD	0	TIME	TIME
AD<0 & MD	0	15:15:43	07:22
ACT_P <5 kBq	48 12.5%		07:56

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS

ERR

07:57

2-SEC RECORDS WITH SORTS

383 (ACT_P >0 kBq)

09:13

2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

11:13

2 DETECTORS 91 84.3%

12:23

3 DETECTORS 17 15.7%

15:41

4 DETECTORS 0 0.0%

5 DETECTORS 0 0.0%

6 DETECTORS 0 0.0%

7 DETECTORS 0 0.0%

8 DETECTORS 0 0.0%

TOTAL 108

NET 2-SEC RECORDS WITH SORTS

275

2-SEC PERIODS WITH NO SORTS

ERR

AVG TIME BETWEEN 2-SEC SORTS

ERR sec

1-GATE SORTS		196	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	5	2.6%	-14000	1	-261	4000	12	3.1%
2	21	10.7%	-12000	2	-224	8000	157	41.0%
3	42	21.4%	-10000	1	-187	12000	74	19.3%
4	54	27.6%	-8000	5	-149	16000	34	8.9%
5	38	19.4%	-6000	7	-112	20000	21	5.5%
6	22	11.2%	-4000	23	-75	24000	20	5.2%
7	12	6.1%	-2000	77	-37	28000	12	3.1%
8	2	1.0%	0	126	0	32000	4	1.0%
TOTAL	196		2000	201	37	36000	3	0.8%
			4000	216	75	40000	10	2.6%
			6000	186	112	44000	6	1.6%
2-GATE SORTS		187	8000	150	149	48000	5	1.3%
DETECTR	SORTS	FREQ%						
8			10000	73	187	52000	2	0.5%
9	8	4.3%	12000	32	224	56000	3	0.8%
10	26	13.9%	14000	11	261	60000	4	1.0%
11	50	26.7%	16000	4	299	64000	1	0.3%
12	47	25.1%	18000	0	336	68000	2	0.5%
13	35	18.7%	20000	0	373	72000	4	1.0%
14	15	8.0%	22000	0	410	76000	3	0.8%
15	6	3.2%	24000	0	448	80000	2	0.5%
TOTAL	187		26000	0	485	84000	0	0.0%
			>28000	0	0	>84000	4	1.0%
			TOTAL	1115		TOTAL	383	

SUMMARY TOTALS

HOT PARTICLE EVENTS 372

SORTS BY ONE GATE ONLY

196

MULTIPARTICLE EVENTS 305

SORTS BY TWO GATES

187

DISTRIBUTED EVENTS 0

REC CODE EXPLANATION

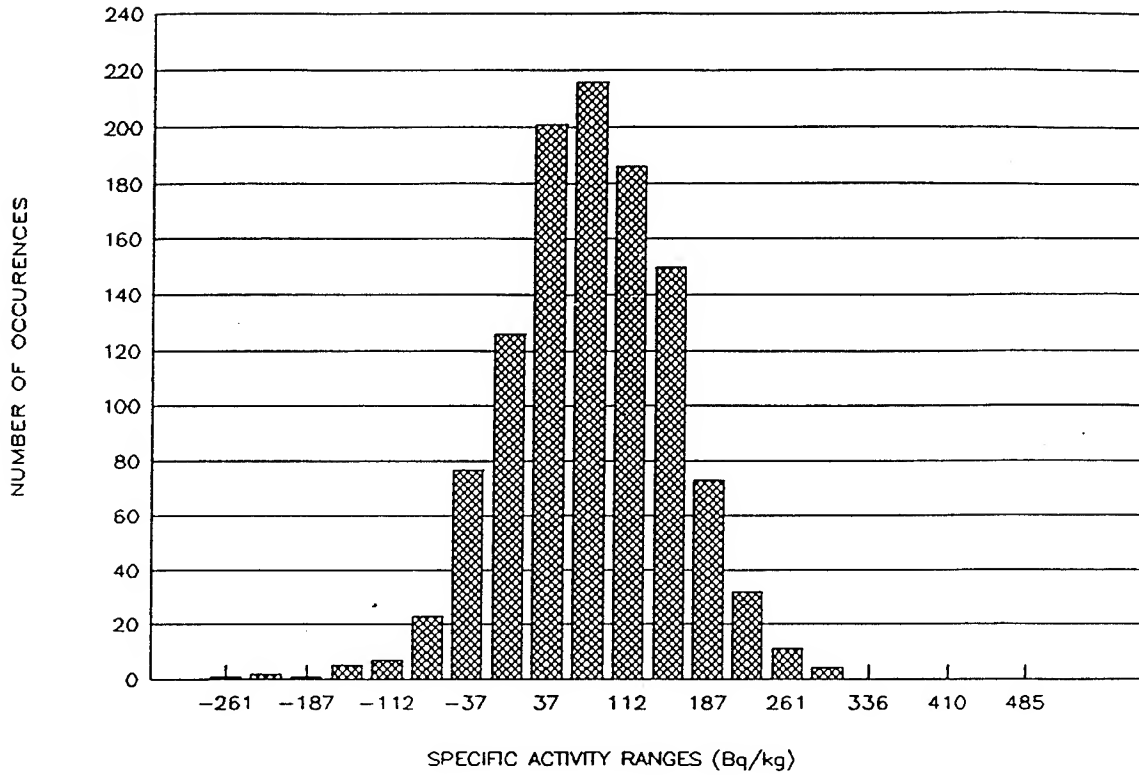
1.00 Source check (Soil on belt)

2.00 Empty belt

3.00 Test (No process soil)

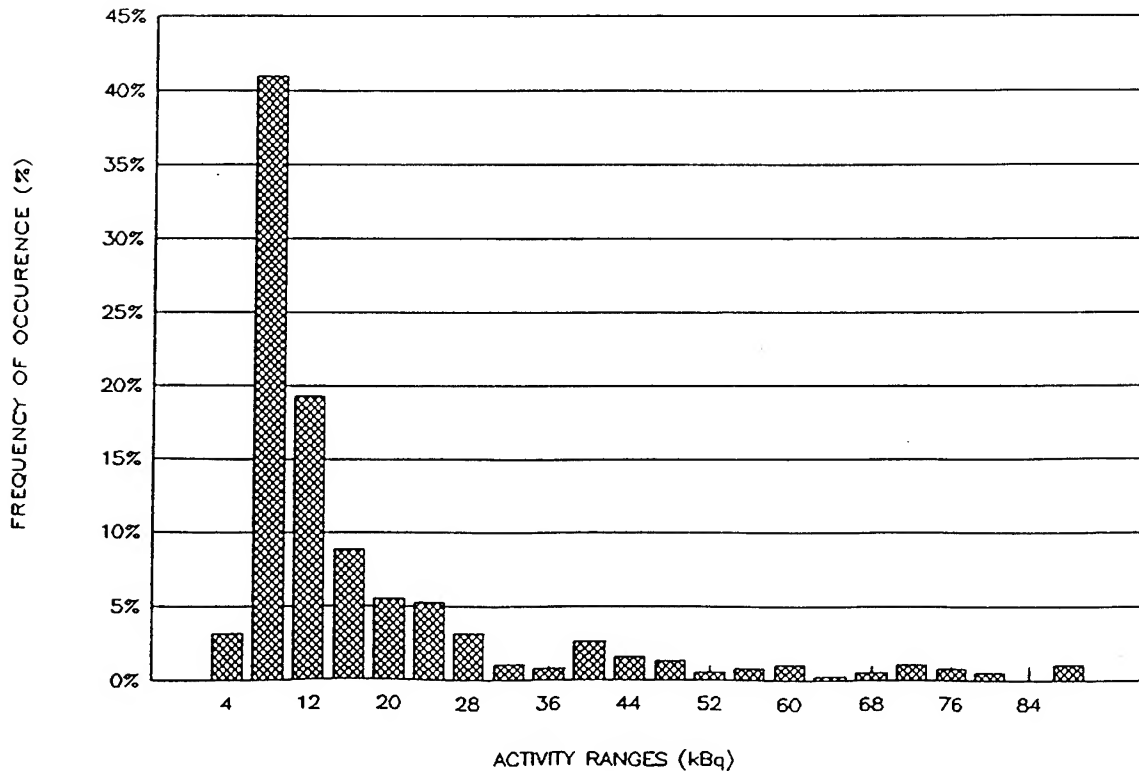
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2_LOG DATA FOR 16-Nov-92



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 16-Nov-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 14-Nov-92

AVERAGE BACKGROUND COUNT RATE 0.78 ± 0.05 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.80 tons	65.0 tons
MAXIMUM/SORT	56.2 kg	53.6 kg
MINIMUM/SORT	0.7 kg	48.2 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		98.8%
EQUIVALENT SOIL-IN-GROUND	0.63 yd ³	51.5 yd ³ 52.1 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	11,986 kBq
MAXIMUM/SORT	325 kBq
MINIMUM/SORT	3.0 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	4,383 kBq	5,574 kBq
MAXIMUM/SORT	163 kBq	19 kBq
MINIMUM/SORT	0 Bq	-14 kBq
SPECIFIC ACTIVITY	5,491 Bq/kg	86 Bq/kg

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	07:43 AM	
PLANT STARTUP TIME		0.72 hr
PROCESSING END	04:25 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		1.09 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		8.70 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		6.82 hr
TOTAL SYSTEM PAUSE TIME		0.57 hr
TOTAL DOWNTIME (MAX-ACTUAL)		1.88 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		68.1%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	1,861
NONPROCESS RECORDS (Test, calibration, etc)	9

20-SEC PROCESS RECORDS	1,227
TOTAL SORT	1 MD>0 & MND=0
NO SORT	716 AD=0 & MD=0 & MND>0
SOME SORT	510 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	3
AD=0 & MD	0
AD<0 & MD	0

JA SOIL CLEANUP PLANT LOG SUMMARY

ACT_P <5 kBq 88 13.9%

2-SEC COUNT PERIODS 12,270

2-SEC RECORDS WITH SORTS 634 (ACT_P >0 kBq)

2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	150	77.3%
3 DETECTORS	40	20.6%
4 DETECTORS	4	2.1%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	194	

NET 2-SEC RECORDS WITH SORTS 440

2-SEC PERIODS WITH NO SORTS 11,830

AVG TIME BETWEEN 2-SEC SORTS 55.8 sec

1-GATE SORTS	318	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P	
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)	
1	8	2.5%	-14000	0	-261	4000	23	3.6%	4
2	27	8.5%	-12000	2	-224	8000	256	40.4%	8
3	52	16.4%	-10000	6	-187	12000	119	18.8%	12
4	61	19.2%	-8000	10	-149	16000	57	9.0%	16
5	56	17.6%	-6000	11	-112	20000	39	6.2%	20
6	65	20.4%	-4000	32	-75	24000	22	3.5%	24
7	40	12.6%	-2000	53	-37	28000	15	2.4%	28
8	9	2.8%	0	127	0	32000	15	2.4%	32
TOTAL	318		2000	162	37	36000	13	2.1%	36
			4000	187	75	40000	10	1.6%	40
2-GATE SORTS	316	6000	165	112	44000	6	0.9%	44	
DETECTR	SORTS	FREQ%	8000	167	149	48000	7	1.1%	48
8			10000	125	187	52000	3	0.5%	52
9	12	3.8%	12000	90	224	56000	2	0.3%	56
10	41	13.0%	14000	47	261	60000	4	0.6%	60
11	60	19.0%	16000	33	299	64000	5	0.8%	64
12	56	17.7%	18000	13	336	68000	4	0.6%	68
13	64	20.3%	20000	6	373	72000	6	0.9%	72
14	52	16.5%	22000	0	410	76000	1	0.2%	76
15	31	9.8%	24000	0	448	80000	2	0.3%	80
TOTAL	316		26000	0	485	84000	3	0.5%	84
			>28000	0	0	>84000	22	3.5%	>84
			TOTAL	1236		TOTAL	634		
HPE	622		GATE1	634					
MPE	486		GATE2	316					
DISE	83								

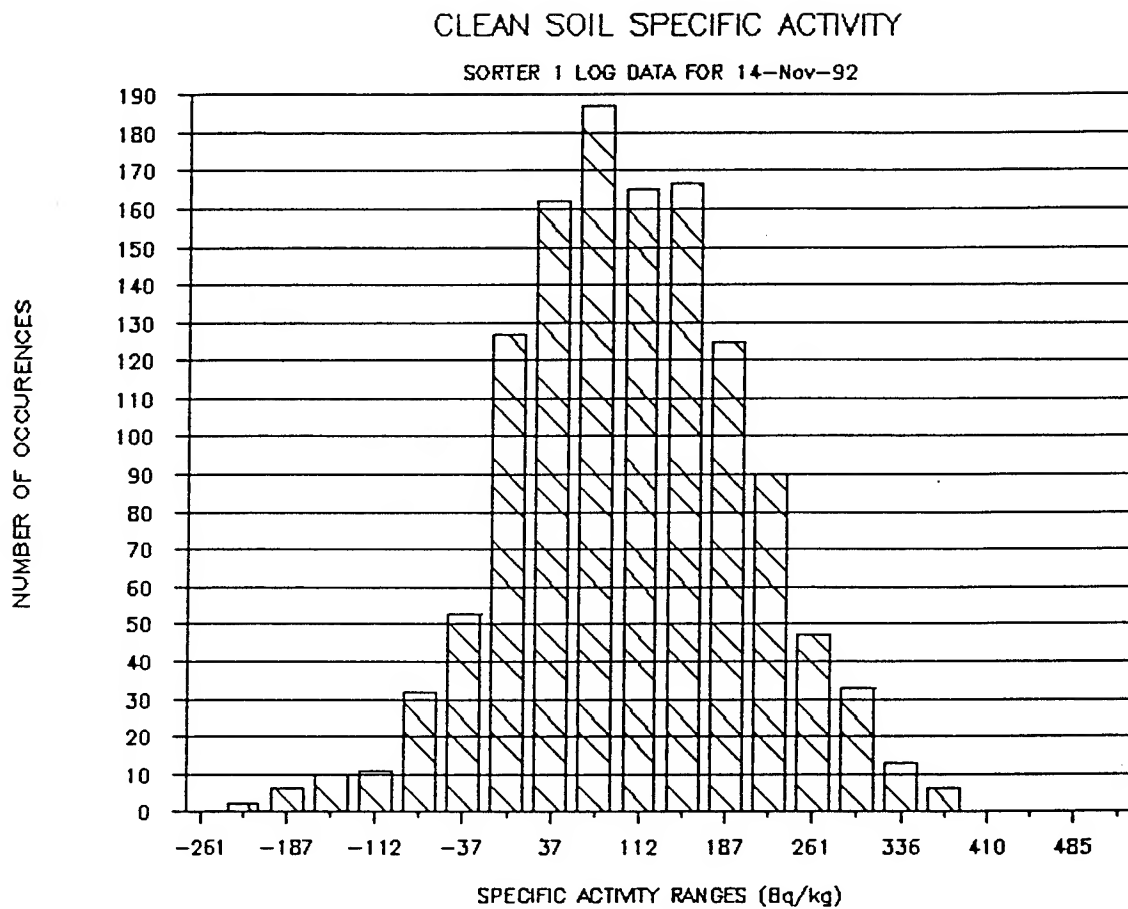
REC CODE EXPLANATION

1.00 Source check (Soil on belt)

JA SOIL CLEANUP PLANT LOG SUMMARY

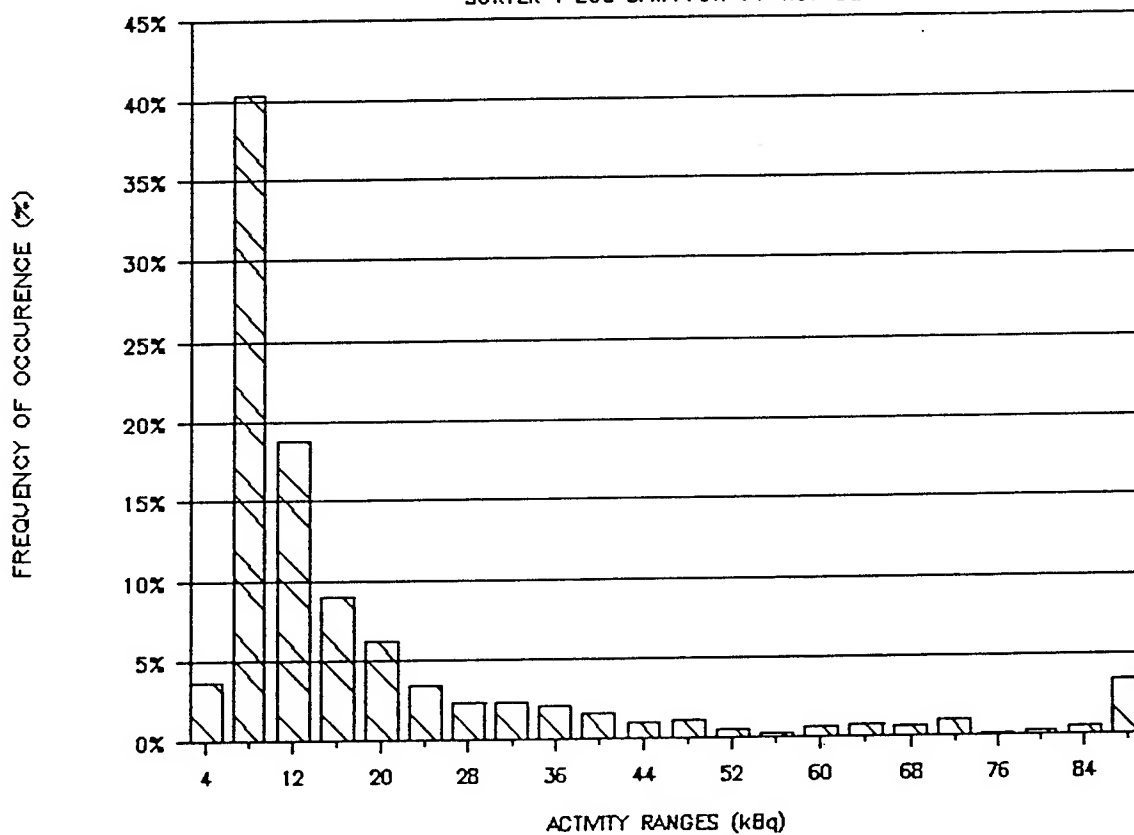
2.00 Empty belt

3.00 Test (No process soil)



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 14-Nov-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 14-Nov-92

AVERAGE BACKGROUND COUNT RATE	0.79 ± 0.04 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		1.16 tons	64.2 tons
MAXIMUM/SORT		53.6 kg	53.6 kg
MINIMUM/SORT		0.7 kg	48.2 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			98.2%
EQUIVALENT SOIL-IN-GROUND		0.92 yd ³	50.9 yd ³ 51.8 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL		8,954 kBq	
MAXIMUM/SORT		196 kBq	
MINIMUM/SORT		2.7 kBq	
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT		4,056 kBq	6,355 kBq
MINIMUM/SORT		131 kBq	20 kBq
SPECIFIC ACTIVITY		0 Bq	-16 kBq
		3,508 Bq/kg	99 Bq/kg
WORK DAY			
WORK DAY START	07:00 AM		
PROCESSING START	07:43 AM		
PLANT STARTUP TIME		0.72 hr	
PROCESSING END	04:25 PM		
WORK DAY END	05:30 PM		
PLANT SHUTDOWN TIME		1.09 hr	
LUNCH PERIOD		0.5 hr	
WORK HOURS		10.0 hr	
MAX PROCESS HOURS (END-START)		8.70 hr	
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		6.78 hr	
TOTAL SYSTEM PAUSE TIME		0.56 hr	
TOTAL DOWNTIME (MAX-ACTUAL)		1.92 hr	
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		67.7%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)		1,790	
NONPROCESS RECORDS (Test, calibration, etc)		11	
20-SEC PROCESS RECORDS		1,220	
TOTAL SORT		8 MD>0 & MND=0	
NO SORT		677 AD=0 & MD=0 & MND>0	
SOME SORT		536 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS		(1)	
0<AD<1kBq & MD>0	0		
AD=0 & MD	0		
AD<0 & MD	0		

JA SOIL CLEANUP PLANT LOG SUMMARY

ACT_P <5 kBq 80 14.0%

2-SEC COUNT PERIODS 12,200

2-SEC RECORDS WITH SORTS 570 (ACT_P >0 kBq)

2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	125	82.2%
3 DETECTORS	23	15.1%
4 DETECTORS	3	2.0%
5 DETECTORS	1	0.7%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	152	

NET 2-SEC RECORDS WITH SORTS 418

2-SEC PERIODS WITH NO SORTS 11,782

AVG TIME BETWEEN 2-SEC SORTS 58.4 sec

1-GATE SORTS	298	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTR	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	11	3.7%	-14000	2	-261	4000	18	3.2%
2	40	13.4%	-12000	2	-224	8000	254	44.6%
3	55	18.5%	-10000	5	-187	12000	96	16.8%
4	57	19.1%	-8000	8	-149	16000	61	10.7%
5	67	22.5%	-6000	7	-112	20000	38	6.7%
6	39	13.1%	-4000	12	-75	24000	18	3.2%
7	24	8.1%	-2000	37	-37	28000	15	2.6%
8	5	1.7%	0	100	0	32000	13	2.3%
TOTAL	298		2000	157	37	36000	11	1.9%
			4000	189	75	40000	7	1.2%
2-GATE SORTS	272	6000	201	112	44000	2	0.4%	44
DETECTR	SORTS	FREQ%	8000	173	149	48000	5	0.9%
8			10000	122	187	52000	3	0.5%
9	17	6.3%	12000	99	224	56000	2	0.4%
10	38	14.0%	14000	61	261	60000	3	0.5%
11	67	24.6%	16000	34	299	64000	2	0.4%
12	50	18.4%	18000	18	336	68000	1	0.2%
13	59	21.7%	20000	4	373	72000	5	0.9%
14	26	9.6%	22000	0	410	76000	1	0.2%
15	15	5.5%	24000	0	448	80000	0	0.0%
TOTAL	272		26000	0	485	84000	3	0.5%
			>28000	0	0	>84000	12	2.1%
			TOTAL	1231		TOTAL	570	
HPE	554		GATE1	570				
MPE	543		GATE2	272				
DISE	628							

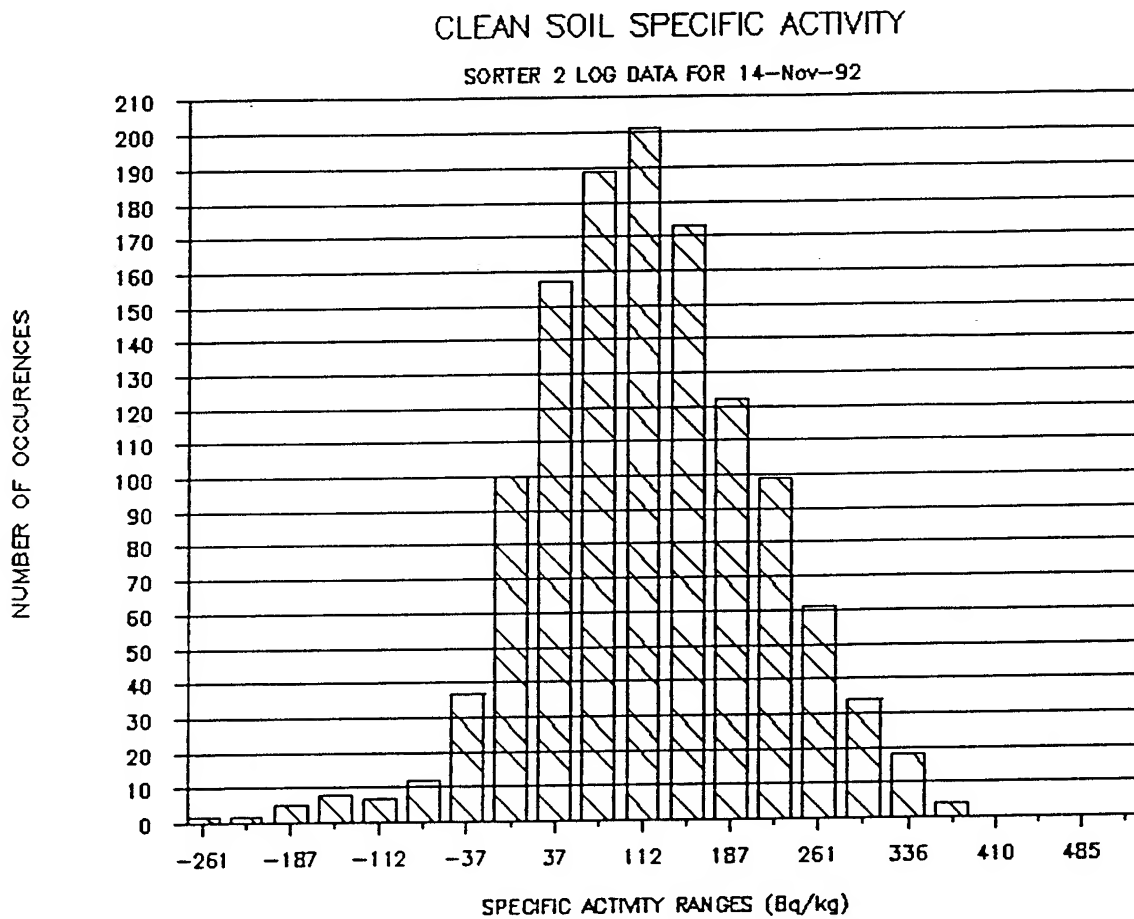
REC CODE EXPLANATION

1.00 Source check (Soil on belt)

JA SOIL CLEANUP PLANT LOG SUMMARY

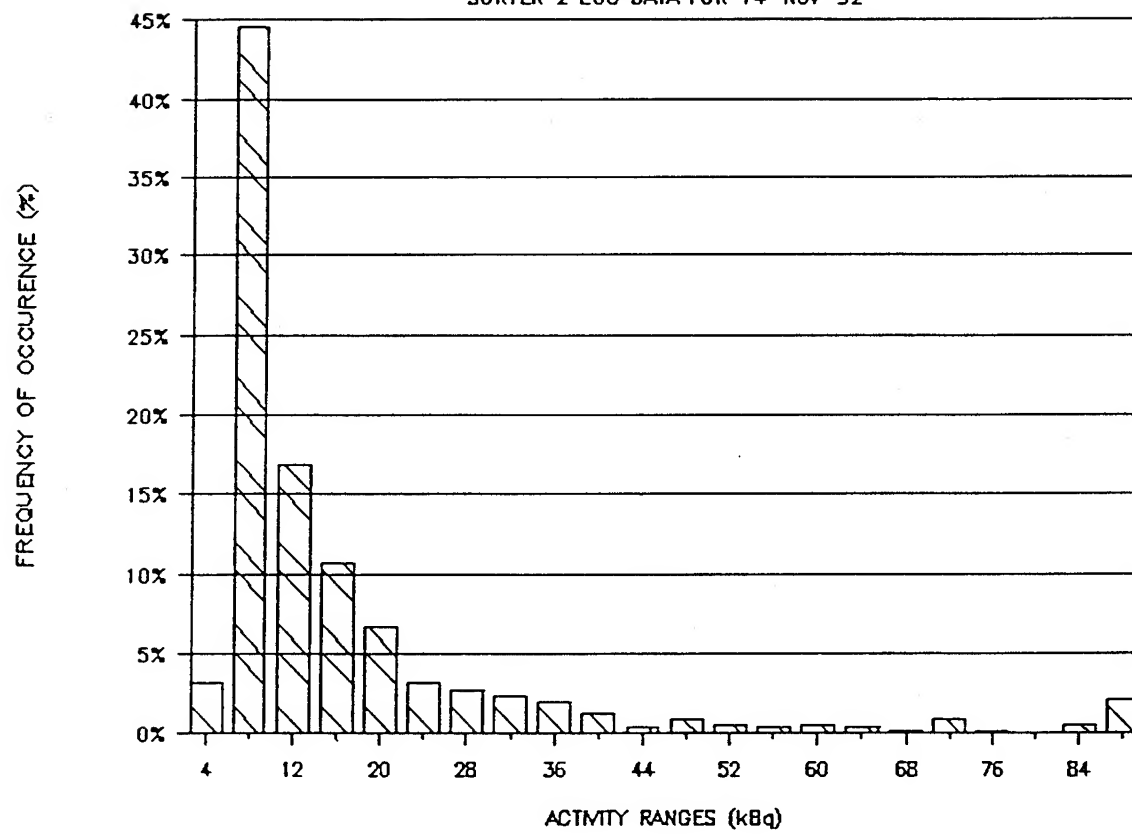
2.00 Empty belt

3.00 Test (No process soil)



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 14-Nov-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 07-Nov-92

AVERAGE BACKGROUND COUNT RATE 0.80 ± 0.01 c/sec

SORTER SOIL DENSITY 1.15 tons/m³

GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	2.41 tons	71.1 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	45.5 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		96.7%
EQUIVALENT SOIL-IN-GROUND	1.91 yd ³	56.4 yd ³ 58.3 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	35,918 kBq
MAXIMUM/SORT	2,358 kBq
MINIMUM/SORT	2.7 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	13,034 kBq	8,862 kBq
MAXIMUM/SORT	1245 kBq	18 kBq
MINIMUM/SORT	0 Bq	-15 kBq
SPECIFIC ACTIVITY	5,411 Bq/kg	125 Bq/kg

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	07:48 AM	
PLANT STARTUP TIME		0.82 hr
PROCESSING END	04:25 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		1.09 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		8.61 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		7.63 hr
TOTAL SYSTEM PAUSE TIME		0.00 hr
TOTAL DOWNTIME (MAX-ACTUAL)		0.98 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		76.2%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	3,251
NONPROCESS RECORDS (Test, calibration, etc)	10

20-SEC PROCESS RECORDS	1,373
TOTAL SORT	10 MD>0 & MND=0
NO SORT	440 AD=0 & MD=0 & MND>0
SOME SORT	922 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	1
0<AD<1kBq & MD>0	0
AD=0 & MD	0
AD<0 & MD	0

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 13,730
 2-SEC RECORDS WITH SORTS 1,878 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	431	82.6%
3 DETECTORS	80	15.3%
4 DETECTORS	9	1.7%
5 DETECTORS	2	0.4%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	522	

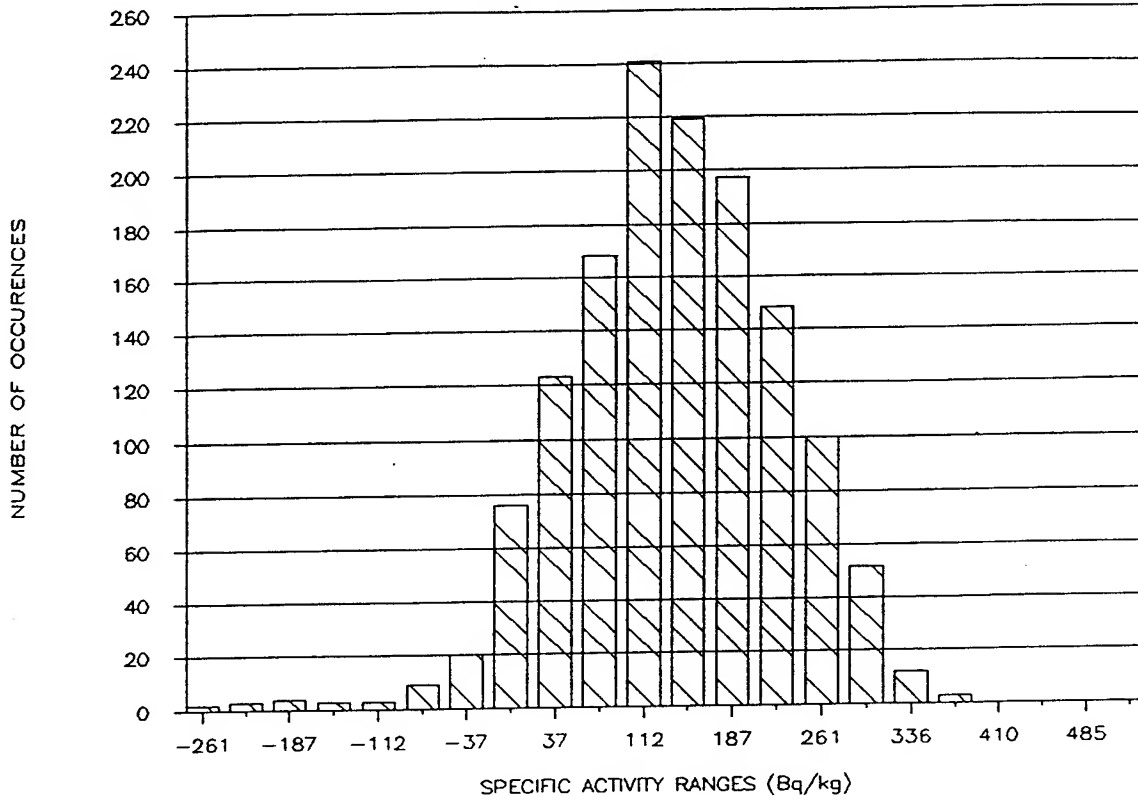
NET 2-SEC RECORDS WITH SORTS 1,356
 2-SEC PERIODS WITH NO SORTS 12,374
 AVG TIME BETWEEN 2-SEC SORTS 20.3 sec

1-GATE SORTS	932	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	17	1.8%	-14000	2	-261	4000	56	3.0%
2	62	6.7%	-12000	3	-224	8000	802	42.7%
3	126	13.5%	-10000	4	-187	12000	351	18.7%
4	149	16.0%	-8000	3	-149	16000	188	10.0%
5	168	18.0%	-6000	3	-112	20000	125	6.7%
6	174	18.7%	-4000	9	-75	24000	65	3.5%
7	166	17.8%	-2000	20	-37	28000	38	2.0%
8	70	7.5%	0	76	0	32000	35	1.9%
TOTAL	932		2000	123	37	36000	19	1.0%
			4000	168	75	40000	39	2.1%
2-GATE SORTS	946	6000	241	112	44000	24	1.3%	44
DETECTO	SORTS	FREQ%	8000	219	149	48000	14	0.7%
8			10000	197	187	52000	13	0.7%
9	32	3.4%	12000	148	224	56000	6	0.3%
10	99	10.5%	14000	100	261	60000	8	0.4%
11	153	16.2%	16000	52	299	64000	14	0.7%
12	177	18.7%	18000	12	336	68000	11	0.6%
13	171	18.1%	20000	3	373	72000	7	0.4%
14	175	18.5%	22000	0	410	76000	8	0.4%
15	139	14.7%	24000	0	448	80000	3	0.2%
TOTAL	946		26000	0	485	84000	4	0.2%
			>28000	0	0	>84000	48	2.6%
			TOTAL	1383		TOTAL	1878	
HPE	1852		GATE1	1878				
MPE	1069		GATE2	946				
DISE	762							

REC CODE EXPLANATION

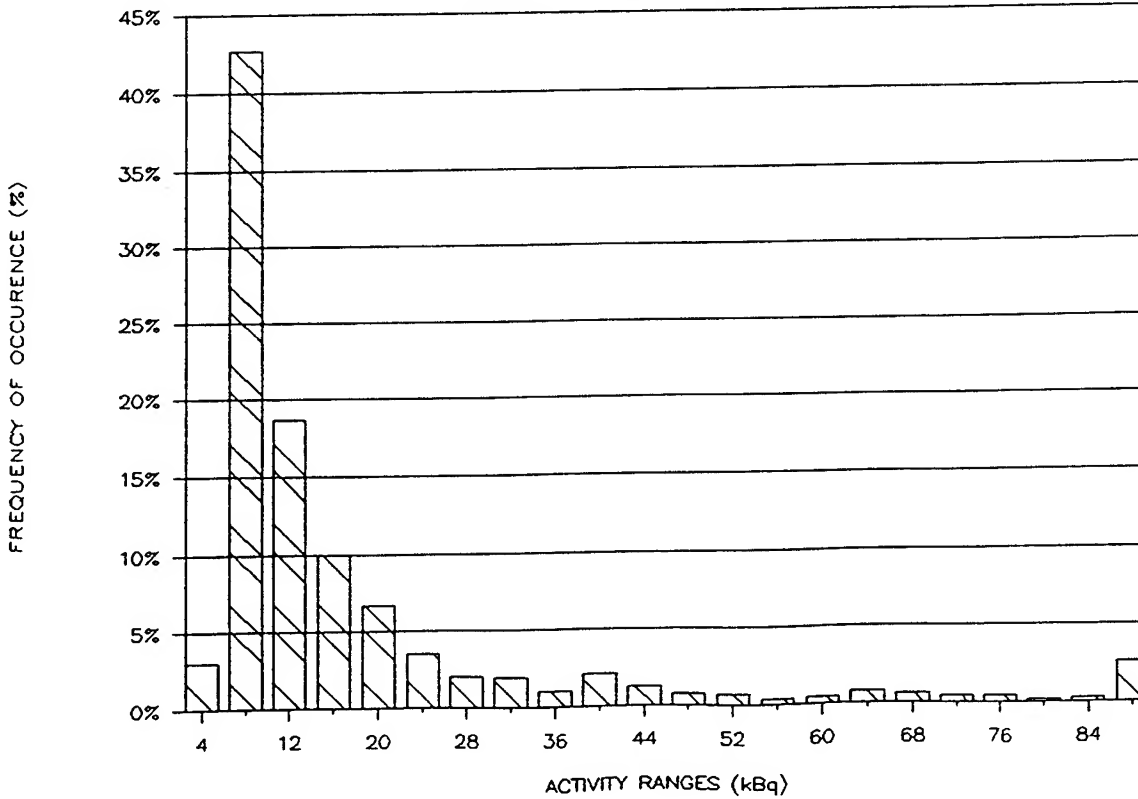
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 07-Nov-92



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 07-Nov-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 07-Nov-92

AVERAGE BACKGROUND COUNT RATE 0.83 ± 0.05 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	4.94 tons	67.6 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	42.8 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		93.2%
EQUIVALENT SOIL-IN-GROUND	3.91 yd ³	53.6 yd ³ 57.5 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	62,966 kBq
MAXIMUM/SORT	11,721 kBq
MINIMUM/SORT	2.7 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	26,683 kBq	13,175 kBq
MAXIMUM/SORT	12538 kBq	20 kBq
MINIMUM/SORT	0 Bq	-9 kBq
SPECIFIC ACTIVITY	5,406 Bq/kg	195 Bq/kg

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	07:49 AM	
PLANT STARTUP TIME		0.82 hr
PROCESSING END	04:23 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		1.12 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		8.57 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		7.52 hr
TOTAL SYSTEM PAUSE TIME		0.06 hr
TOTAL DOWNTIME (MAX-ACTUAL)		1.05 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		75.2%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,916
NONPROCESS RECORDS (Test, calibration, etc)	19

20-SEC PROCESS RECORDS	1,354
TOTAL SORT	60 MD>0 & MND=0
NO SORT	418 AD=0 & MD=0 & MND>0
SOME SORT	877 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	(1)
0<AD<1kBq & MD>0	1
AD=0 & MD	1
AD<0 & MD	0

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 13,540
 2-SEC RECORDS WITH SORTS 1,562 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	369	76.4%
3 DETECTORS	91	18.8%
4 DETECTORS	16	3.3%
5 DETECTORS	3	0.6%
6 DETECTORS	1	0.2%
7 DETECTORS	1	0.2%
8 DETECTORS	1	0.2%
TOTAL	483	

NET 2-SEC RECORDS WITH SORTS 1,079
 2-SEC PERIODS WITH NO SORTS 12,461
 AVG TIME BETWEEN 2-SEC SORTS 25.1 sec

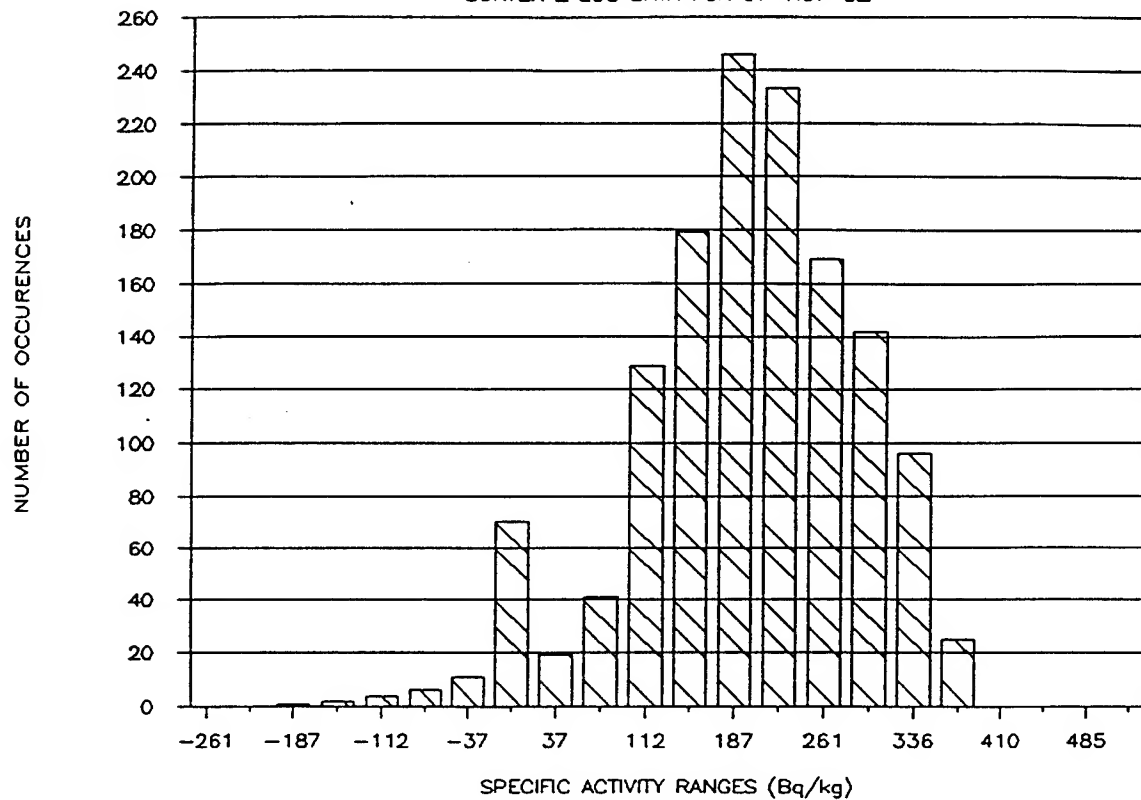
1-GATE SORTS	792	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)
1	33	4.2%	-14000	0	-261	4000	48 3.1%
2	134	16.9%	-12000	0	-224	8000	667 42.7%
3	177	22.3%	-10000	1	-187	12000	268 17.2%
4	164	20.7%	-8000	2	-149	16000	146 9.3%
5	123	15.5%	-6000	4	-112	20000	99 6.3%
6	95	12.0%	-4000	6	-75	24000	60 3.8%
7	53	6.7%	-2000	11	-37	28000	34 2.2%
8	13	1.6%	0	70	0	32000	32 2.0%
TOTAL	792		2000	19	37	36000	23 1.5%
			4000	41	75	40000	16 1.0%
			6000	129	112	44000	19 1.2%
2-GATE SORTS	770		8000	179	149	48000	12 0.8%
DETECTO	SORTS	FREQ%	10000	246	187	52000	24 1.5%
8			12000	233	224	56000	7 0.4%
9	81	10.5%	14000	169	261	60000	5 0.3%
10	144	18.7%	16000	142	299	64000	5 0.3%
11	188	24.4%	18000	96	336	68000	5 0.3%
12	140	18.2%	20000	25	373	72000	6 0.4%
13	98	12.7%	22000	0	410	76000	7 0.4%
14	86	11.2%	24000	0	448	80000	6 0.4%
15	33	4.3%	26000	0	485	84000	3 0.2%
TOTAL	770		>28000	0	0	>84000	70 4.5%
			TOTAL	1373		TOTAL	1562

HPE	1497	GATE1	1562
HPE	1306	GATE2	770
DISE	4569		

REC CODE EXPLANATION

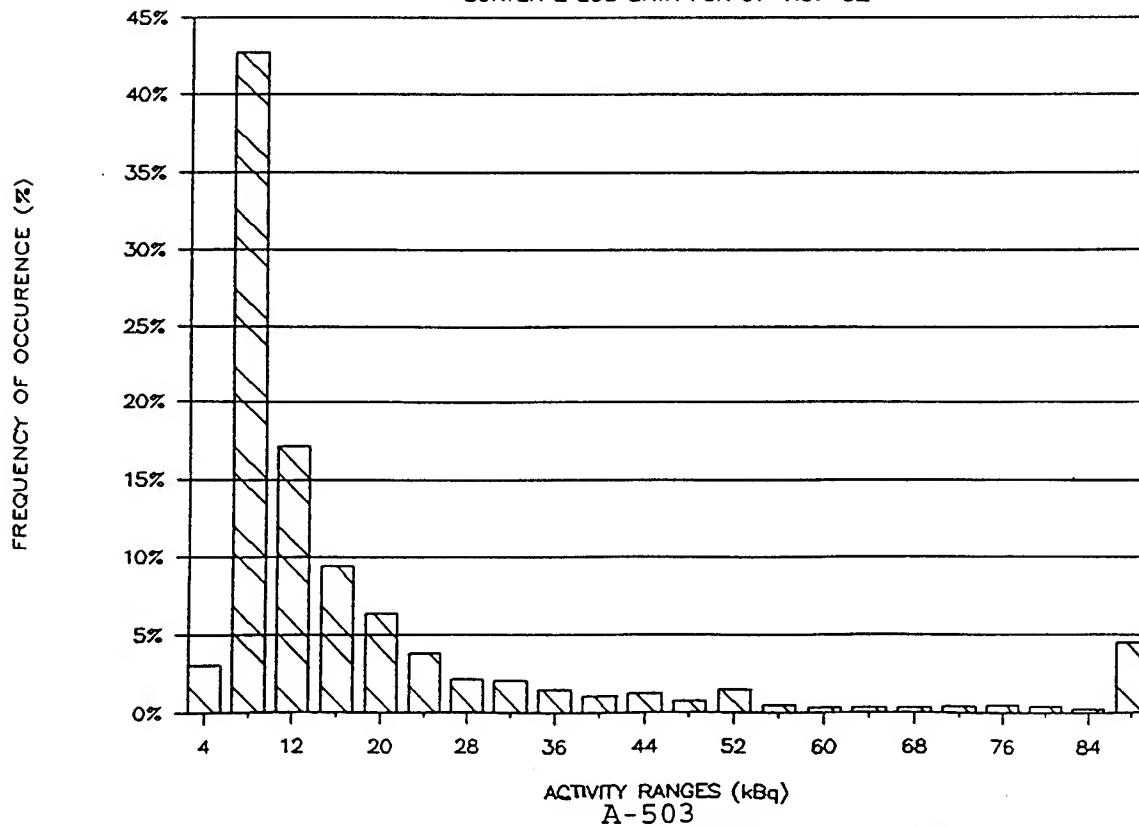
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 07-Nov-92



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 07-Nov-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 06-Nov-92

AVERAGE BACKGROUND COUNT RATE 0.80 ± 0.02 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	2.64 tons	64.4 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	43.5 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		96.1%
EQUIVALENT SOIL-IN-GROUND	2.10 yd ³	51.1 yd ³ 53.2 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	21,672 kBq
MAXIMUM/SORT	1,658 kBq
MINIMUM/SORT	3.0 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	8,315 kBq	4,949 kBq
MAXIMUM/SORT	1016 kBq	18 kBq
MINIMUM/SORT	0 Bq	-10 kBq
SPECIFIC ACTIVITY	3,145 Bq/kg	77 Bq/kg

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	09:56 AM	
PLANT STARTUP TIME		2.94 hr
PROCESSING END	04:53 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.62 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		6.95 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		6.96 hr
TOTAL SYSTEM PAUSE TIME		0.00 hr
TOTAL DOWNTIME (MAX-ACTUAL)		-0.01 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		69.5%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,174
NONPROCESS RECORDS (Test, calibration, etc)	8

20-SEC PROCESS RECORDS	1,252
TOTAL SORT	34 MD>0 & MND=0
NO SORT	714 AD=0 & MD=0 & MND>0
SOME SORT	504 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	1
AD=0 & MD	0
AD<0 & MD	0

JA SOIL CLEANUP PLANT LOG SUMMARY

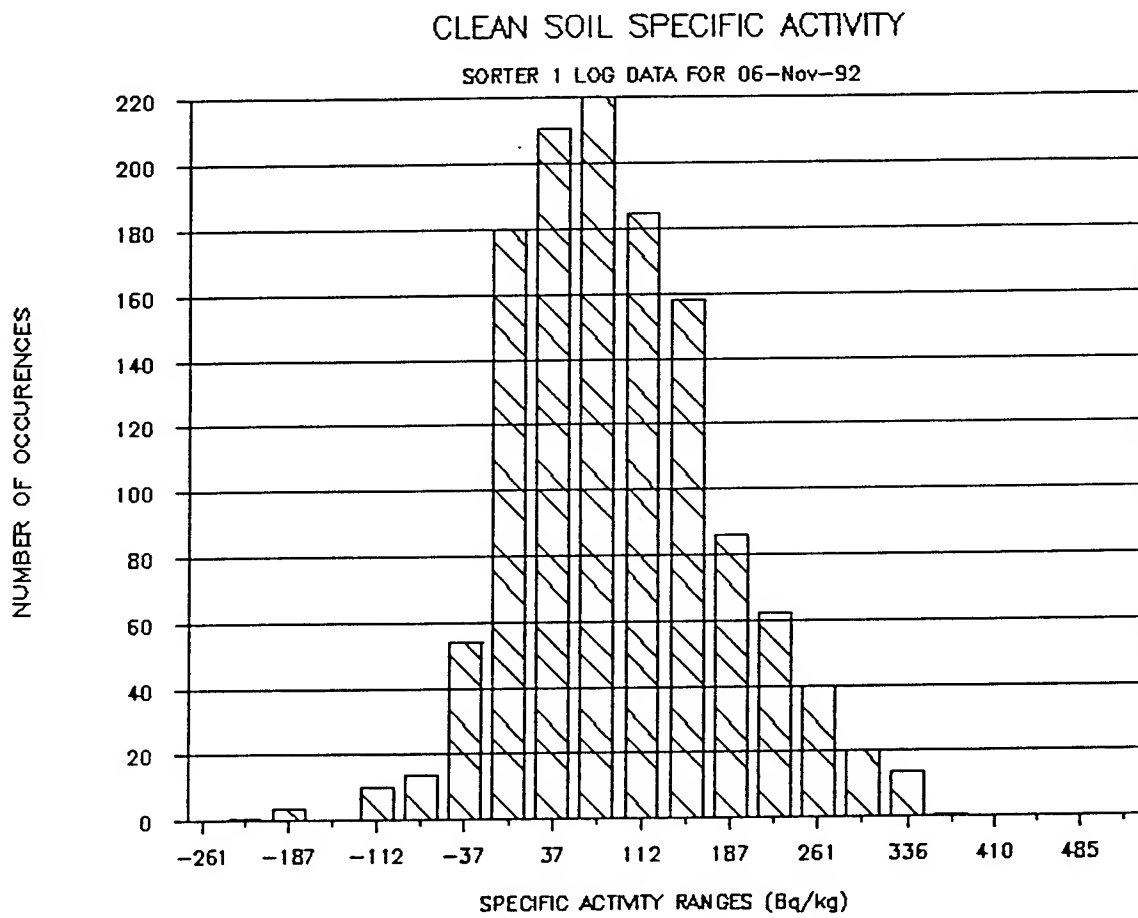
2-SEC COUNT PERIODS 12,520
 2-SEC RECORDS WITH SORTS 922 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	225	83.0%
3 DETECTORS	41	15.1%
4 DETECTORS	5	1.8%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	271	

NET 2-SEC RECORDS WITH SORTS 651
 2-SEC PERIODS WITH NO SORTS 11,869
 AVG TIME BETWEEN 2-SEC SORTS 38.5 sec

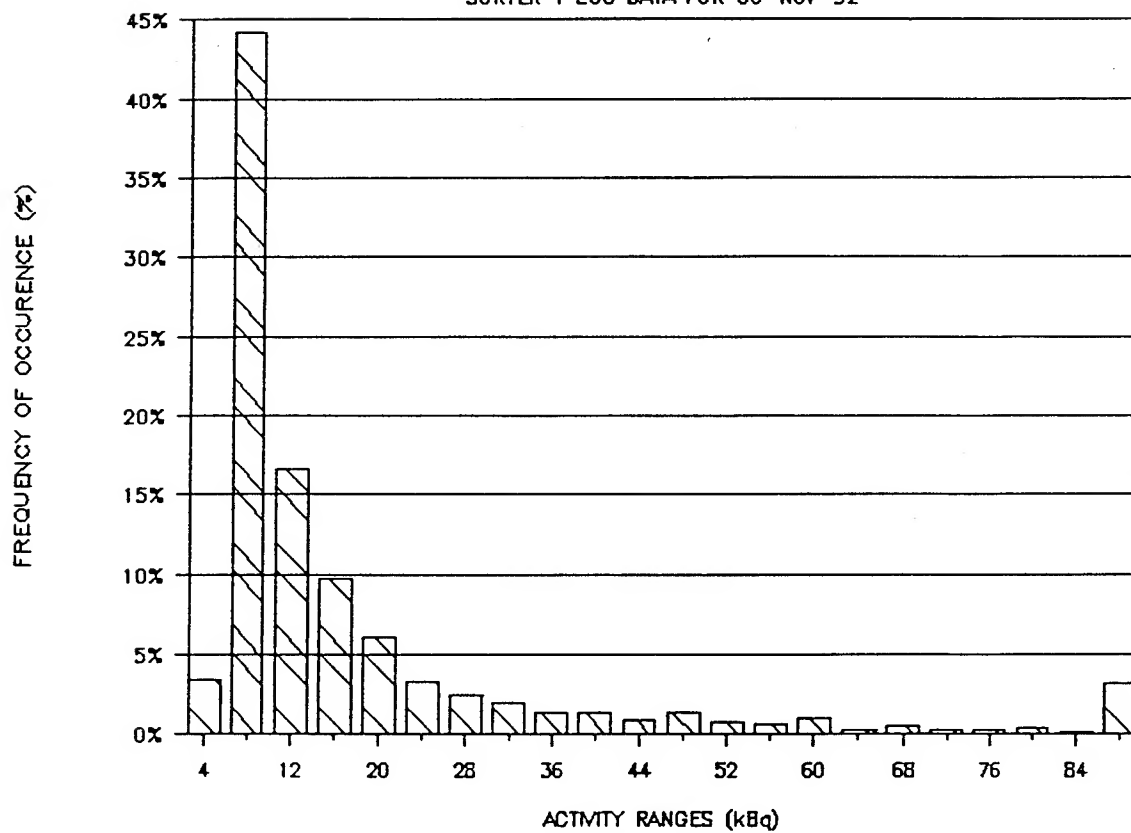
1-GATE SORTS	448	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	7	1.6%	-14000	0	-261	4000	31	3.4%
2	27	6.0%	-12000	1	-224	8000	408	44.3%
3	56	12.5%	-10000	4	-187	12000	153	16.6%
4	76	17.0%	-8000	0	-149	16000	89	9.7%
5	79	17.6%	-6000	10	-112	20000	56	6.1%
6	76	17.0%	-4000	14	-75	24000	30	3.3%
7	95	21.2%	-2000	54	-37	28000	23	2.5%
8	32	7.1%	0	180	0	32000	18	2.0%
TOTAL	448		2000	211	37	36000	13	1.4%
			4000	220	75	40000	12	1.3%
2-GATE SORTS	474	6000	185	112	44000	8	0.9%	44
DETECTO	SORTS	FREQ%	8000	158	149	48000	13	1.4%
8			10000	86	187	52000	7	0.8%
9	19	4.0%	12000	62	224	56000	6	0.7%
10	47	9.9%	14000	40	261	60000	9	1.0%
11	71	15.0%	16000	20	299	64000	2	0.2%
12	79	16.7%	18000	14	336	68000	5	0.5%
13	80	16.9%	20000	1	373	72000	3	0.3%
14	114	24.1%	22000	0	410	76000	2	0.2%
15	64	13.5%	24000	0	448	80000	4	0.4%
TOTAL	474		26000	0	485	84000	1	0.1%
			>28000	0	0	>84000	29	3.1%
			TOTAL	1260		TOTAL	922	
HPE	913		GATE1	922				
MPE	643		GATE2	474				
DISE	2391							

REC CODE EXPLANATION



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 06-Nov-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 06-Nov-92

AVERAGE BACKGROUND COUNT RATE 0.60 ± 0.00 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN	
MASS TOTAL	0.06 tons	0.7 tons	
MAXIMUM/SORT	53.6 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	51.6 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			92.6%
EQUIVALENT SOIL-IN-GROUND	0.05 yd ³	0.6 yd ³	0.6 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	25 kBq		
MAXIMUM/SORT	7 kBq		
MINIMUM/SORT	3.3 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	42 kBq	145 kBq	
MAXIMUM/SORT	22 kBq	18 kBq	
MINIMUM/SORT	0 Bq	-0 kBq	
SPECIFIC ACTIVITY	697 Bq/kg	194 Bq/kg	

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	04:10 PM	
PLANT STARTUP TIME		9.17 hr
PROCESSING END	04:14 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		1.26 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		0.08 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		0.08 hr
TOTAL SYSTEM PAUSE TIME		0.00 hr
TOTAL DOWNTIME (MAX-ACTUAL)		-0.01 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		0.8%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	20
NONPROCESS RECORDS (Test, calibration, etc)	7

20-SEC PROCESS RECORDS	15
TOTAL SORT	1 MD>0 & MND=0
NO SORT	9 AD=0 & MD=0 & MND>0
SOME SORT	5 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	0
AD=0 & MD	0
AD<0 & MD	0

JA SOIL CLEANUP PLANT LOG SUMMARY

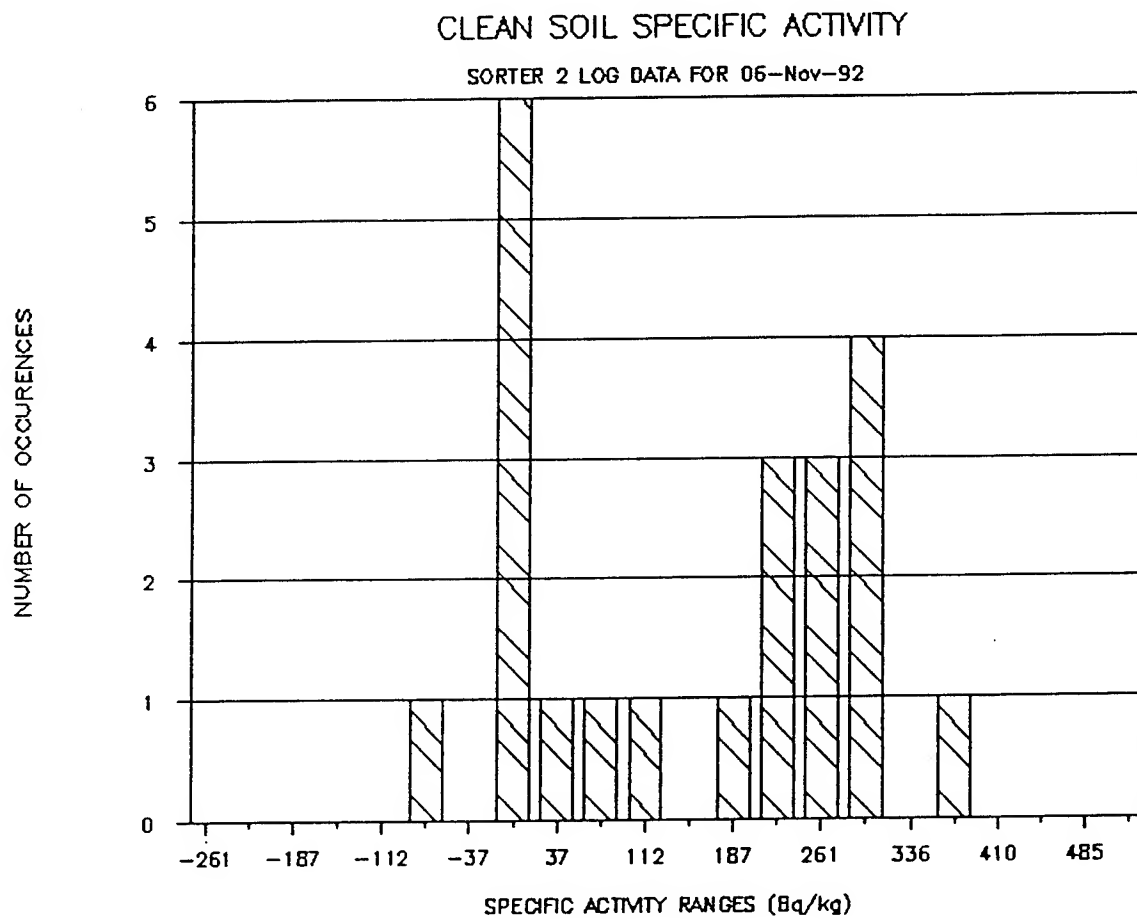
2-SEC COUNT PERIODS 150
 2-SEC RECORDS WITH SORTS 5 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 2 66.7%
 3 DETECTORS 1 33.3%
 4 DETECTORS 0 0.0%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 3

NET 2-SEC RECORDS WITH SORTS 2
 2-SEC PERIODS WITH NO SORTS 148
 AVG TIME BETWEEN 2-SEC SORTS 150.0 sec

1-GATE SORTS	3	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	0	0.0%	-14000	0	-261	4000	1	20.0%
2	1	33.3%	-12000	0	-224	8000	4	80.0%
3	0	0.0%	-10000	0	-187	12000	0	0.0%
4	2	66.7%	-8000	0	-149	16000	0	0.0%
5	0	0.0%	-6000	0	-112	20000	0	0.0%
6	0	0.0%	-4000	1	-75	24000	0	0.0%
7	0	0.0%	-2000	0	-37	28000	0	0.0%
8	0	0.0%	0	6	0	32000	0	0.0%
TOTAL	3		2000	1	37	36000	0	0.0%
			4000	1	75	40000	0	0.0%
2-GATE SORTS	2		6000	1	112	44000	0	0.0%
DETECTO	SORTS	FREQ%	8000	0	149	48000	0	0.0%
8			10000	1	187	52000	0	0.0%
9	0	0.0%	12000	3	224	56000	0	0.0%
10	0	0.0%	14000	3	261	60000	0	0.0%
11	1	50.0%	16000	4	299	64000	0	0.0%
12	1	50.0%	18000	0	336	68000	0	0.0%
13	0	0.0%	20000	1	373	72000	0	0.0%
14	0	0.0%	22000	0	410	76000	0	0.0%
15	0	0.0%	24000	0	448	80000	0	0.0%
TOTAL	2		26000	0	485	84000	0	0.0%
			>28000	0	0	>84000	0	0.0%
			TOTAL	22		TOTAL	5	

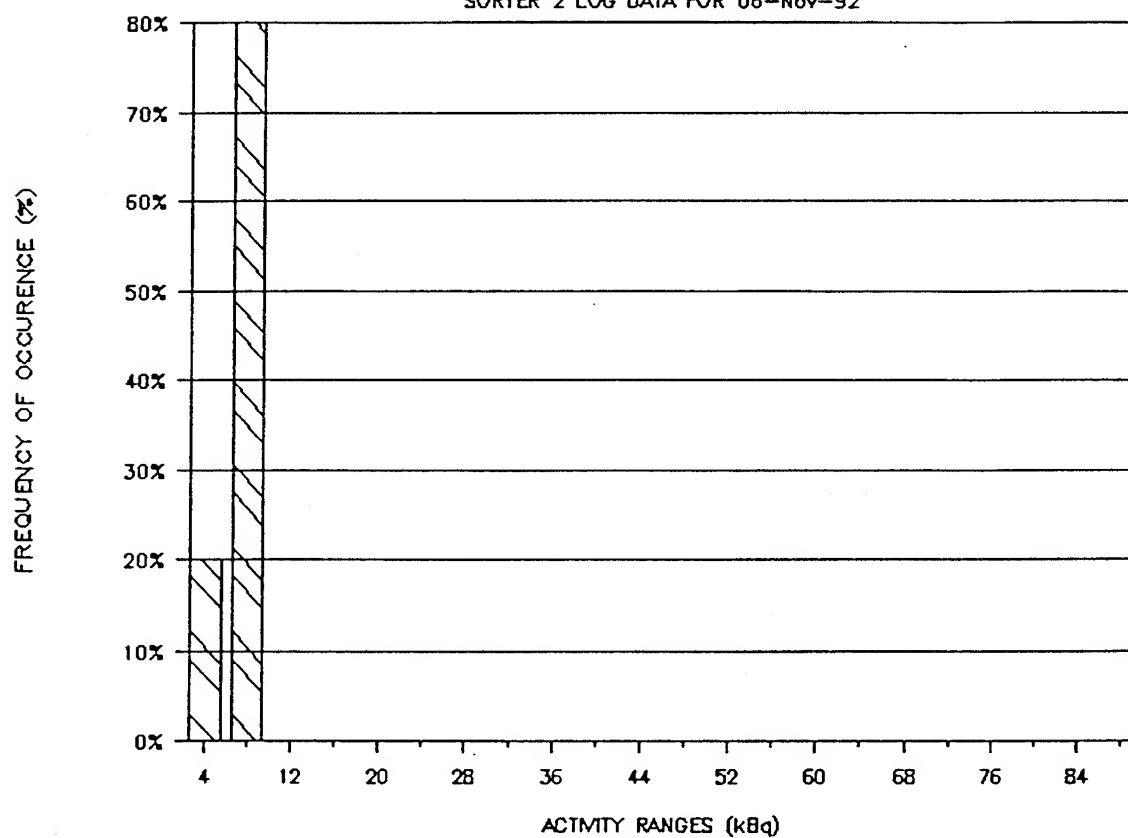
HPE 5 GATE1 5
 MPE 5 GATE2 2
 DISE 79

REC CODE EXPLANATION



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 06-Nov-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 05-Nov-92

AVERAGE BACKGROUND COUNT RATE 0.79 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	5.38 tons	71.8 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	44.9 kg

WEIGHT RECOVERY OR VOLUME RECOVERY 93.0%
 EQUIVALENT SOIL-IN-GROUND 4.27 yd³ 56.9 yd³ 61.2 yd³/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)
 TOTAL 22,269 kBq
 MAXIMUM/SORT 415 kBq
 MINIMUM/SORT 2.6 kBq

	10,574 kBq	8,226 kBq
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY		
MAXIMUM/SORT	266 kBq	18 kBq
MINIMUM/SORT	0 Bq	-10 kBq
SPECIFIC ACTIVITY	1,964 Bq/kg	115 Bq/kg

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	07:43 AM	
PLANT STARTUP TIME		0.72 hr
PROCESSING END	04:56 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.56 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		9.23 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		8.01 hr
TOTAL SYSTEM PAUSE TIME		0.00 hr
TOTAL DOWNTIME (MAX-ACTUAL)		1.22 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		80.0%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 2,803
 NONPROCESS RECORDS (Test, calibration, etc) 16

20-SEC PROCESS RECORDS	1,441
TOTAL SORT	78 MD>0 & MND=0
NO SORT	650 AD=0 & MD=0 & MND>0
SOME SORT	712 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	1
0<AD<1kBq & MD>0	1 10:36:30
AD=0 & MD	0
AD<0 & MD	0

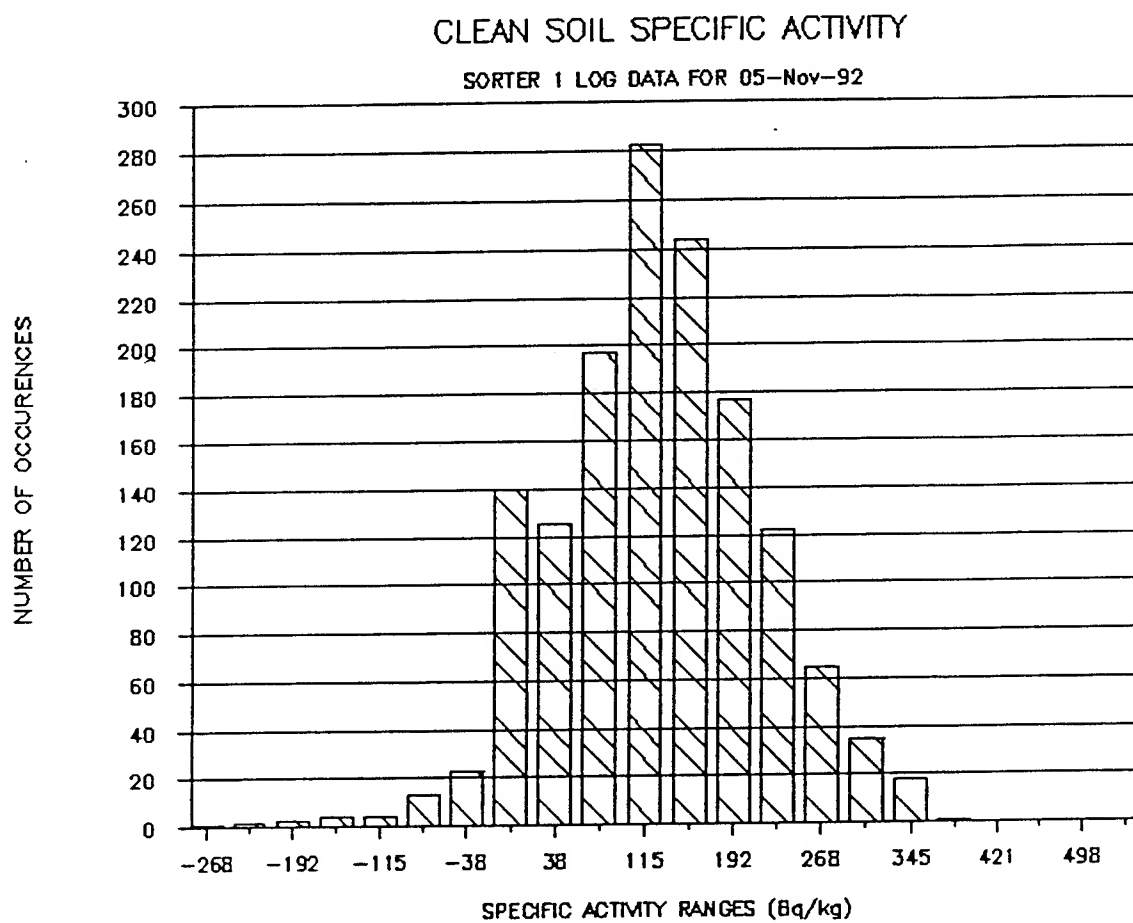
JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 14,410
 2-SEC RECORDS WITH SORTS 1,362 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 322 80.5%
 3 DETECTORS 61 15.3%
 4 DETECTORS 15 3.8%
 5 DETECTORS 2 0.5%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 400

NET 2-SEC RECORDS WITH SORTS 962
 2-SEC PERIODS WITH NO SORTS 13,448
 AVG TIME BETWEEN 2-SEC SORTS 30.0 sec

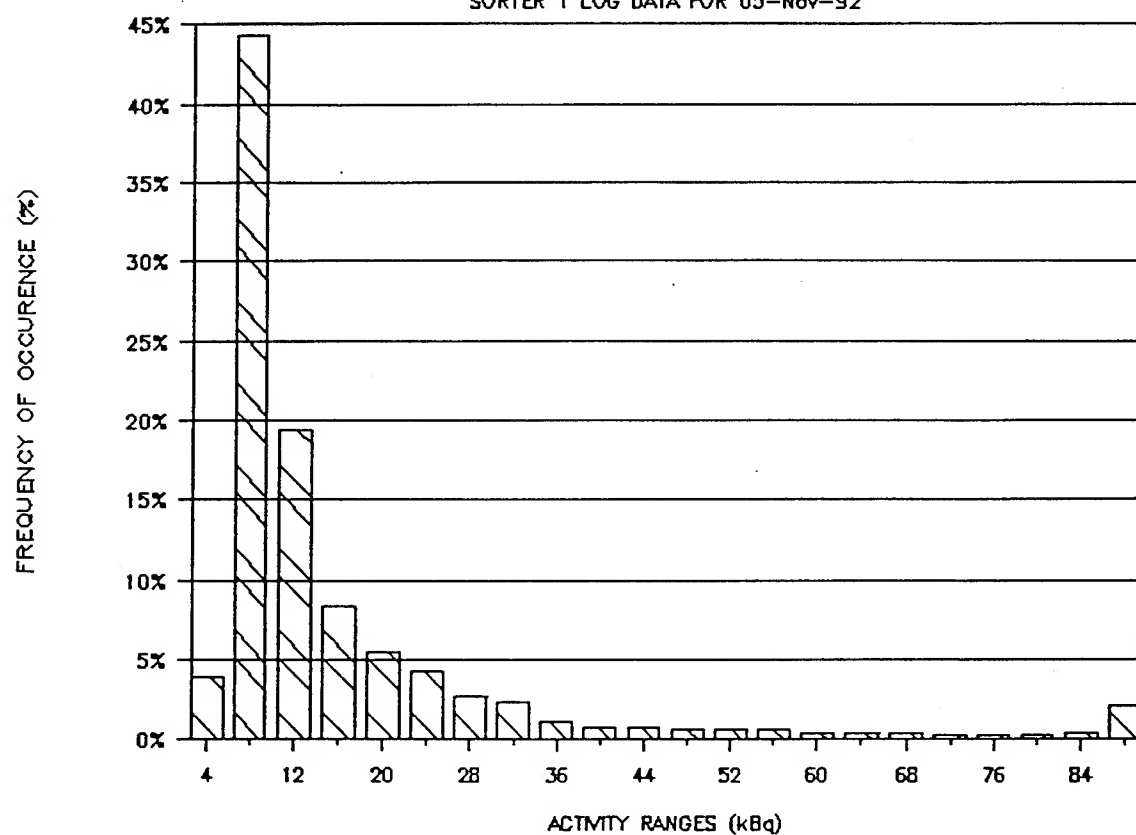
1-GATE SORTS	690	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	29	4.2%	-14000	1	-261	4000	53	3.9%
2	87	12.6%	-12000	2	-224	8000	604	44.3%
3	115	16.7%	-10000	3	-187	12000	265	19.5%
4	111	16.1%	-8000	4	-149	16000	114	8.4%
5	123	17.8%	-6000	4	-112	20000	75	5.5%
6	112	16.2%	-4000	13	-75	24000	58	4.3%
7	90	13.0%	-2000	23	-37	28000	37	2.7%
8	23	3.3%	0	140	0	32000	32	2.3%
TOTAL	690		2000	125	37	36000	15	1.1%
			4000	197	75	40000	11	0.8%
2-GATE SORTS	672		6000	283	112	44000	11	0.8%
DETECTO	SORTS	FREQ%	8000	244	149	48000	9	0.7%
8			10000	177	187	52000	8	0.6%
9	55	8.2%	12000	122	224	56000	9	0.7%
10	90	13.4%	14000	65	261	60000	6	0.4%
11	123	18.3%	16000	35	299	64000	6	0.4%
12	122	18.2%	18000	18	336	68000	6	0.4%
13	108	16.1%	20000	1	373	72000	4	0.3%
14	123	18.3%	22000	0	410	76000	3	0.2%
15	51	7.6%	24000	0	448	80000	3	0.2%
TOTAL	672		26000	0	485	84000	5	0.4%
			>28000	0	0	>84000	28	2.1%
			TOTAL	1457		TOTAL	1362	
HPE	1336		GATE1	1362				
MPE	1187		GATE2	672				
DISE	5595							

REC CODE EXPLANATION



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 05-Nov-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 05-Nov-92

AVERAGE BACKGROUND COUNT RATE	0.80 ± 0.06 c/sec	
SORTER SOIL DENSITY	1.15 tons/m ³	
GROUND SOIL DENSITY	1.65 tons/m ³	
	CONTAMINATED	CLEAN
MASS TOTAL	4.35 tons	56.7 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	42.2 kg
WEIGHT RECOVERY OR VOLUME RECOVERY		92.9%
EQUIVALENT SOIL-IN-GROUND	3.45 yd ³	45.0 yd ³ 48.4 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)		
TOTAL	15,957 kBq	
MAXIMUM/SORT	780 kBq	
MINIMUM/SORT	2.3 kBq	
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	9,650 kBq	9,461 kBq
MAXIMUM/SORT	432 kBq	20 kBq
MINIMUM/SORT	0 Bq	-6 kBq
SPECIFIC ACTIVITY	2,216 Bq/kg	167 Bq/kg
WORK DAY		
WORK DAY START	07:00 AM	
PROCESSING START	07:43 AM	
PLANT STARTUP TIME		0.72 hr
PROCESSING END	04:57 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.55 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		9.24 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		6.33 hr
TOTAL SYSTEM PAUSE TIME		0.00 hr
TOTAL DOWNTIME (MAX-ACTUAL)		2.90 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		63.3%
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	1,996	
NONPROCESS RECORDS (Test, calibration, etc)	18	
20-SEC PROCESS RECORDS	1,140	
TOTAL SORT	60 MD>0 & MND=0	
NO SORT	428 AD=0 & MD=0 & MND>0	
SOME SORT	652 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS	0	
0<AD<1kBq & MD>0	2	
AD=0 & MD	0	
AD<0 & MD	0	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 11,400
 2-SEC RECORDS WITH SORTS 856 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 206 77.7%
 3 DETECTORS 45 17.0%
 4 DETECTORS 12 4.5%
 5 DETECTORS 2 0.8%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 265

NET 2-SEC RECORDS WITH SORTS 591
 2-SEC PERIODS WITH NO SORTS 10,809
 AVG TIME BETWEEN 2-SEC SORTS 38.6 sec

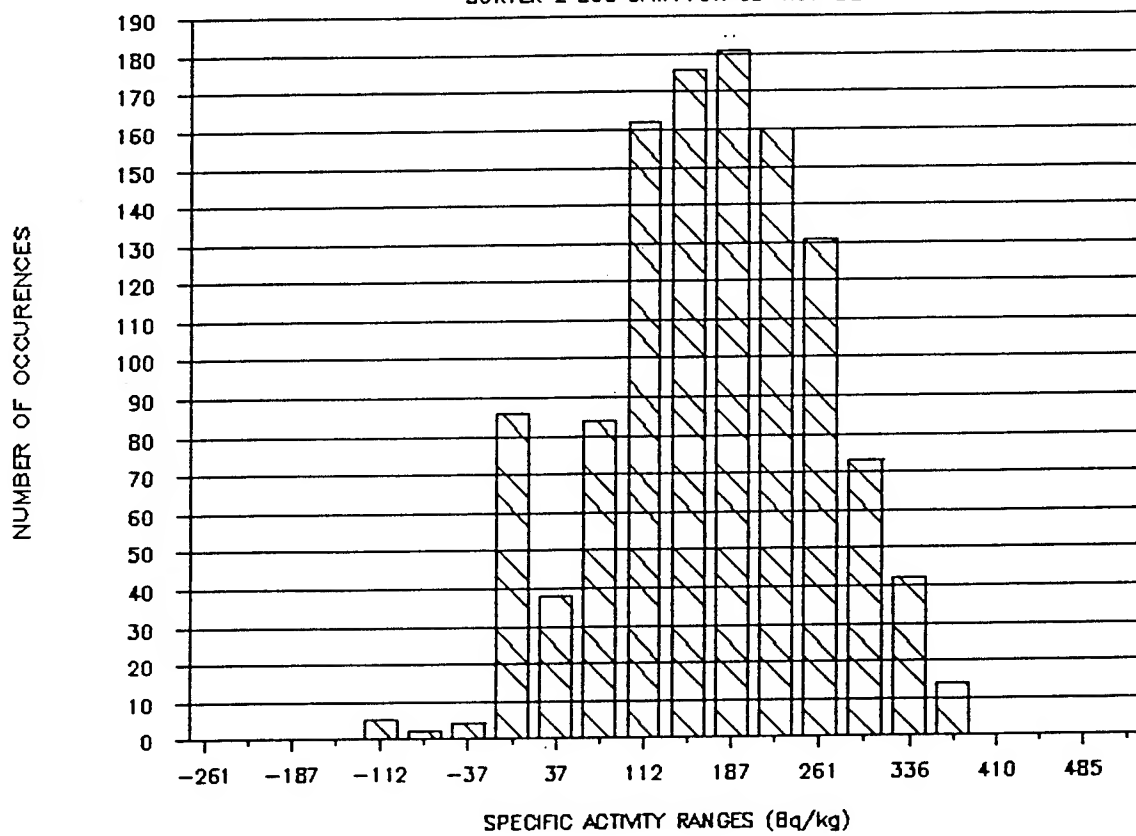
1-GATE SORTS	457	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	21	4.6%	-14000	0	-261	4000	78	9.1%
2	70	15.3%	-12000	0	-224	8000	335	39.1%
3	98	21.4%	-10000	0	-187	12000	155	18.1%
4	91	19.9%	-8000	0	-149	16000	83	9.7%
5	65	14.2%	-6000	5	-112	20000	48	5.6%
6	66	14.4%	-4000	2	-75	24000	29	3.4%
7	40	8.8%	-2000	4	-37	28000	18	2.1%
8	6	1.3%	0	86	0	32000	15	1.8%
TOTAL	457		2000	38	37	36000	16	1.9%
			4000	84	75	40000	6	0.7%
2-GATE SORTS	399	6000	162	112	44000	11	1.3%	44
DETECTO	SORTS	FREQ%	8000	176	149	48000	6	0.7%
8			10000	181	187	52000	6	0.7%
9	36	9.0%	12000	160	224	56000	5	0.6%
10	69	17.3%	14000	131	261	60000	3	0.4%
11	94	23.5%	16000	73	299	64000	3	0.4%
12	79	19.8%	18000	42	336	68000	3	0.4%
13	63	15.8%	20000	14	373	72000	2	0.2%
14	52	13.0%	22000	0	410	76000	4	0.5%
15	7	1.8%	24000	0	448	80000	2	0.2%
TOTAL	400		26000	0	485	84000	1	0.1%
			>28000	0	0	>84000	28	3.3%
			TOTAL	1158		TOTAL	857	

HPE 821 GATE1 856
 MPE 1301 GATE2 399
 DISE 4377

REC CODE EXPLANATION

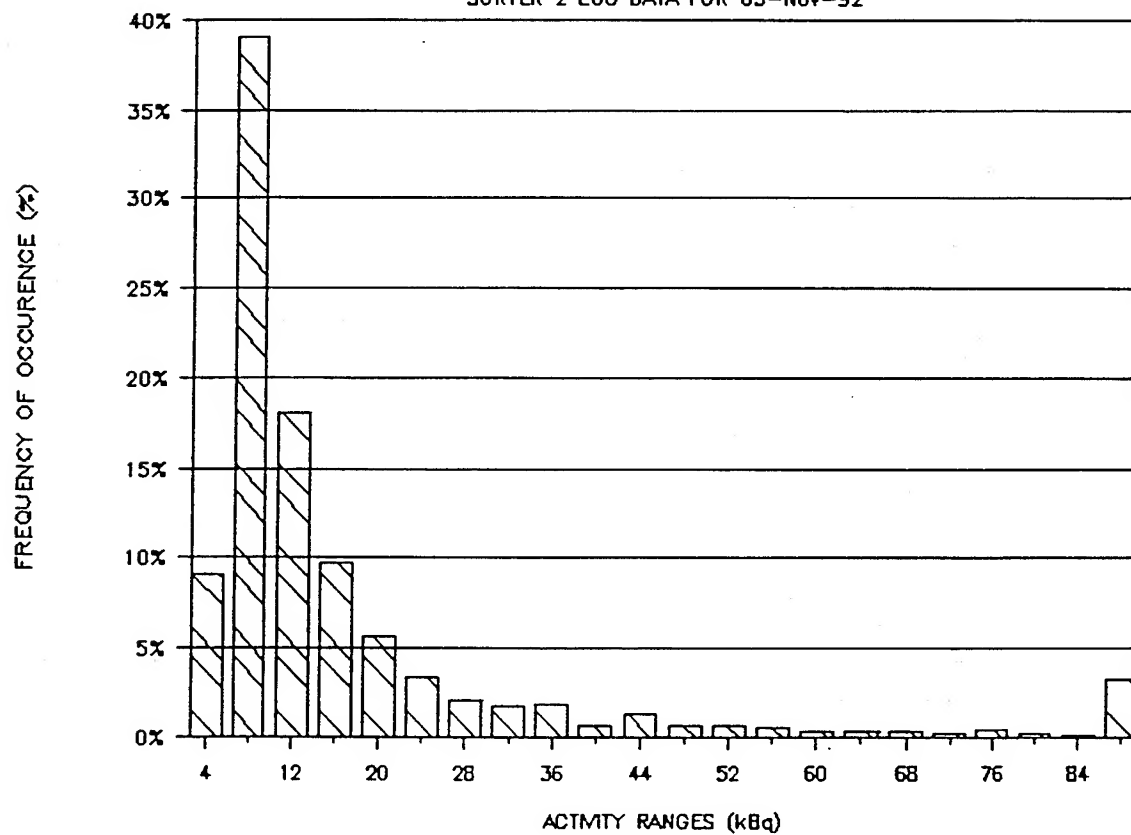
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 05-Nov-92



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 05-Nov-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 04-Nov-92

AVERAGE BACKGROUND COUNT RATE 0.80 ± 0.01 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN	
MASS TOTAL	1.82 tons	77.6 tons	
MAXIMUM/SORT	53.6 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	45.5 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			97.7%
EQUIVALENT SOIL-IN-GROUND	1.44 yd ³	61.6 yd ³	63.0 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	24,773 kBq		
MAXIMUM/SORT	2,421 kBq		
MINIMUM/SORT	3.0 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	8,773 kBq	6,004 kBq	
MAXIMUM/SORT	1440 kBq	19 kBq	
MINIMUM/SORT	0 Bq	-9 kBq	
SPECIFIC ACTIVITY	4,833 Bq/kg	77 Bq/kg	

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	07:30 AM	
PLANT STARTUP TIME		0.50 hr
PROCESSING END	04:51 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.65 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		9.35 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		8.24 hr
TOTAL SYSTEM PAUSE TIME		0.00 hr
TOTAL DOWNTIME (MAX-ACTUAL)		1.11 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		82.3%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 2,579
 NONPROCESS RECORDS (Test, calibration, etc) 29

20-SEC PROCESS RECORDS	1,483
TOTAL SORT	12 MD>0 & MND=0
NO SORT	765 AD=0 & MD=0 & MND>0
SOME SORT	706 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	0
AD=0 & MD	0
AD<0 & MD	0

JA SOIL CLEANUP PLANT LOG SUMMARY

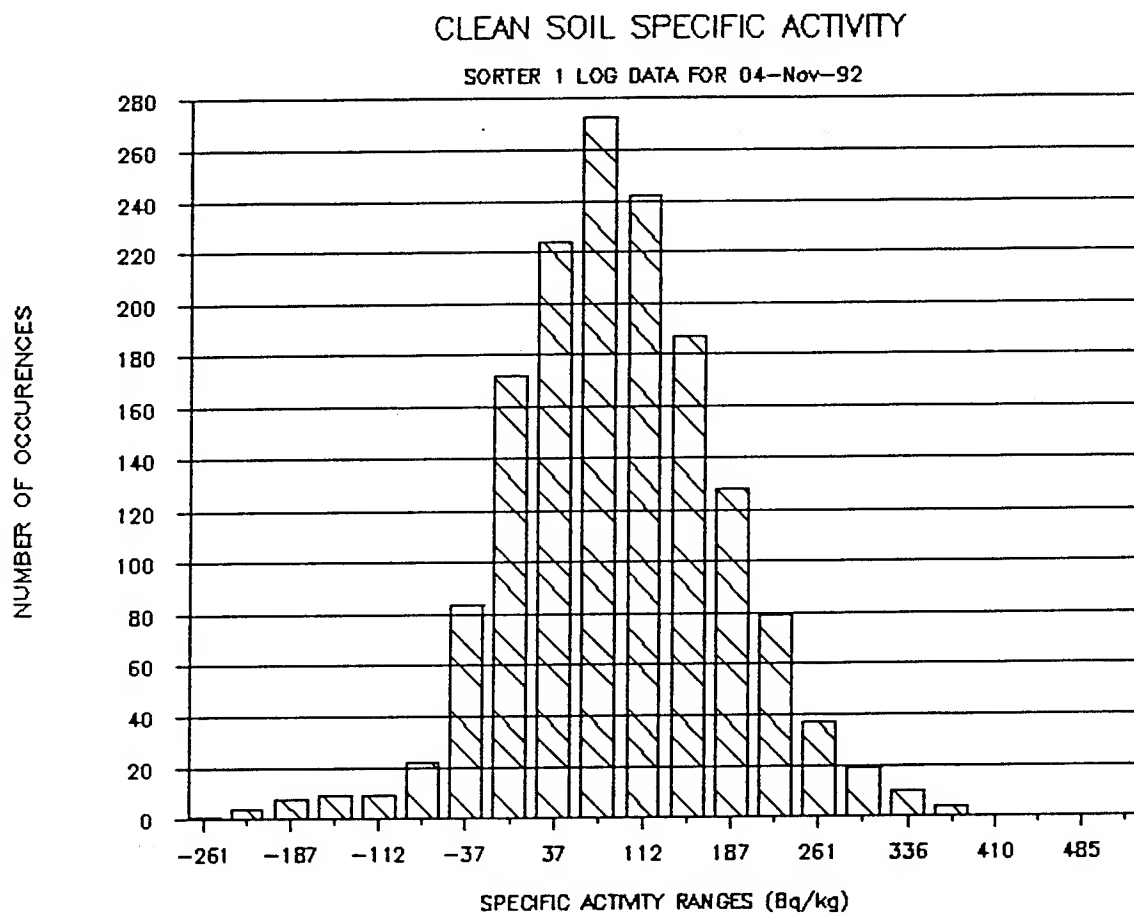
2-SEC COUNT PERIODS 14,830
 2-SEC RECORDS WITH SORTS 1,096 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 245 79.0%
 3 DETECTORS 53 17.1%
 4 DETECTORS 8 2.6%
 5 DETECTORS 2 0.6%
 6 DETECTORS 1 0.3%
 7 DETECTORS 1 0.3%
 8 DETECTORS 0 0.0%
 TOTAL 310

NET 2-SEC RECORDS WITH SORTS 786
 2-SEC PERIODS WITH NO SORTS 14,044
 AVG TIME BETWEEN 2-SEC SORTS 37.7 sec

1-GATE SORTS	534	ACT_MD	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	22	4.1%	-14000	1	-261	4000	50	4.6%
2	41	7.7%	-12000	4	-224	8000	477	43.5%
3	86	16.1%	-10000	8	-187	12000	196	17.9%
4	97	18.2%	-8000	9	-149	16000	101	9.2%
5	105	19.7%	-6000	9	-112	20000	58	5.3%
6	100	18.7%	-4000	22	-75	24000	35	3.2%
7	65	12.2%	-2000	84	-37	28000	26	2.4%
8	18	3.4%	0	172	0	32000	24	2.2%
TOTAL	534		2000	224	37	36000	16	1.5%
			4000	273	75	40000	12	1.1%
2-GATE SORTS	562	6000	242	112	44000	14	1.3%	44
DETECTO	SORTS	FREQ%	8000	187	149	48000	12	1.1%
8			10000	128	187	52000	4	0.4%
9	36	6.4%	12000	79	224	56000	5	0.5%
10	71	12.6%	14000	37	261	60000	8	0.7%
11	95	16.9%	16000	19	299	64000	7	0.6%
12	109	19.4%	18000	10	336	68000	5	0.5%
13	125	22.2%	20000	4	373	72000	4	0.4%
14	89	15.8%	22000	0	410	76000	2	0.2%
15	37	6.6%	24000	0	448	80000	7	0.6%
TOTAL	562		26000	0	485	84000	3	0.3%
			>28000	0	0	>84000	30	2.7%
			TOTAL	1512		TOTAL	1096	

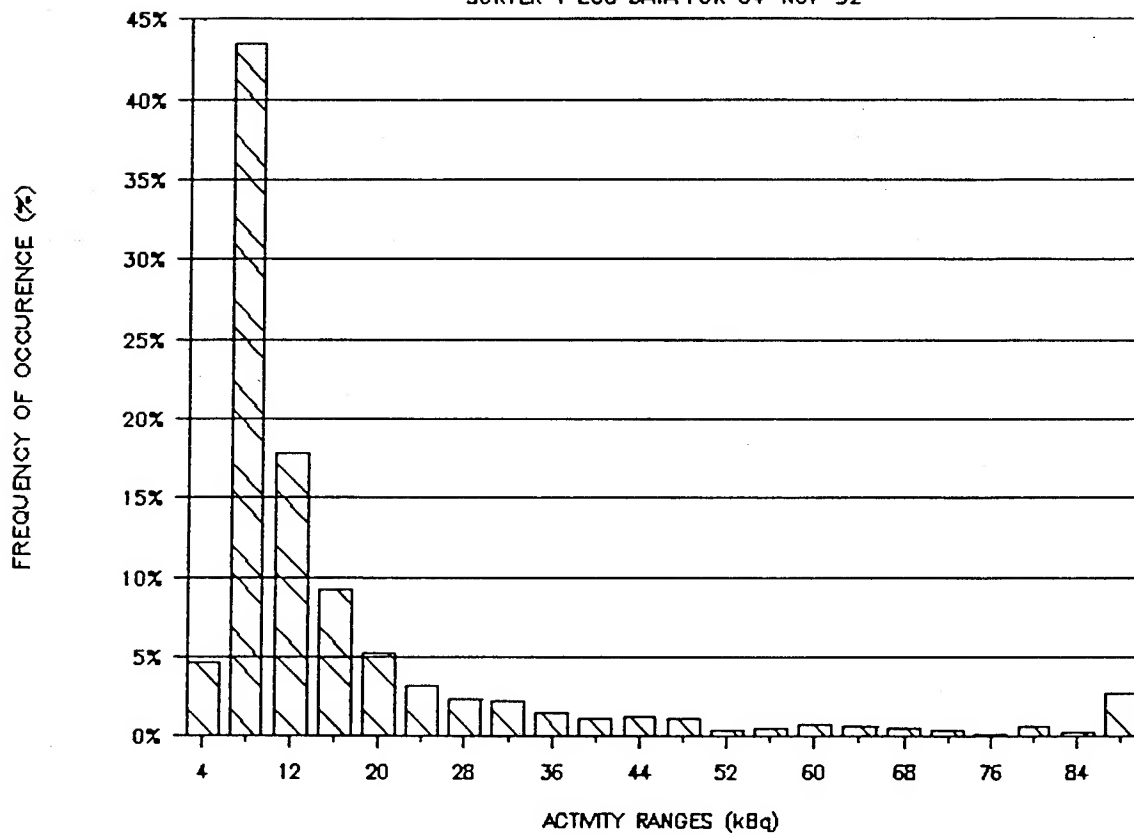
HPE 1095 GATE1 1096
 MPE 735 GATE2 562
 DISE 882

REC CODE EXPLANATION



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 04-Nov-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 04-Nov-92

AVERAGE BACKGROUND COUNT RATE	0.80 ± 0.01 c/sec	
SORTER SOIL DENSITY	1.15 tons/m ³	
GROUND SOIL DENSITY	1.65 tons/m ³	
	CONTAMINATED	CLEAN
MASS TOTAL	2.17 tons	77.8 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	45.5 kg
WEIGHT RECOVERY OR VOLUME RECOVERY		97.3%
EQUIVALENT SOIL-IN-GROUND	1.72 yd ³	61.7 yd ³ 63.4 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)		
TOTAL	13,832 kBq	
MAXIMUM/SORT	336 kBq	
MINIMUM/SORT	2.3 kBq	
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	7,328 kBq	9,785 kBq
MAXIMUM/SORT	236 kBq	18 kBq
MINIMUM/SORT	0 Bq	-5 kBq
SPECIFIC ACTIVITY	3,374 Bq/kg	126 Bq/kg
WORK DAY		
WORK DAY START	07:00 AM	
PROCESSING START	07:30 AM	
PLANT STARTUP TIME		0.50 hr
PROCESSING END	04:51 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.66 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		9.35 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		8.29 hr
TOTAL SYSTEM PAUSE TIME		0.00 hr
TOTAL DOWNTIME (MAX-ACTUAL)		1.05 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		82.9%
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,373	
NONPROCESS RECORDS (Test, calibration, etc)	19	
20-SEC PROCESS RECORDS	1,493	
TOTAL SORT	17 MD>0 & MND=0	
NO SORT	681 AD=0 & MD=0 & MND>0	
SOME SORT	795 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS	0	
0<AD<1kBq & MD>0	0	
AD=0 & MD	0	
AD<0 & MD	0	

JA SOIL CLEANUP PLANT LOG SUMMARY

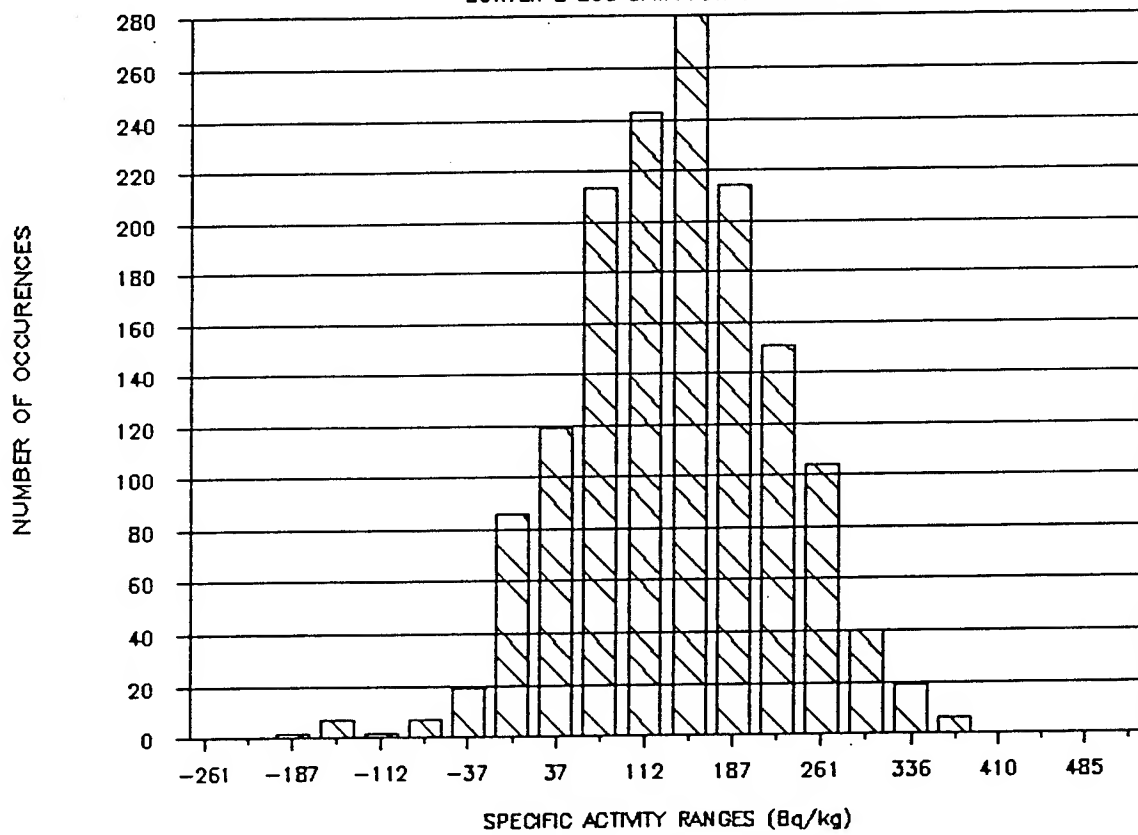
2-SEC COUNT PERIODS 14,930
 2-SEC RECORDS WITH SORTS 880 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 195 76.8%
 3 DETECTORS 47 18.5%
 4 DETECTORS 9 3.5%
 5 DETECTORS 2 0.8%
 6 DETECTORS 1 0.4%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 254
 NET 2-SEC RECORDS WITH SORTS 626
 2-SEC PERIODS WITH NO SORTS 14,304
 AVG TIME BETWEEN 2-SEC SORTS 47.7 sec

1-GATE SORTS	444	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	23	5.2%	-14000	0	-261	4000	85	9.7%
2	93	20.9%	-12000	0	-224	8000	357	40.6%
3	94	21.2%	-10000	2	-187	12000	137	15.6%
4	99	22.3%	-8000	7	-149	16000	76	8.6%
5	70	15.8%	-6000	2	-112	20000	59	6.7%
6	36	8.1%	-4000	7	-75	24000	29	3.3%
7	24	5.4%	-2000	19	-37	28000	23	2.6%
8	5	1.1%	0	86	0	32000	11	1.3%
TOTAL	444		2000	119	37	36000	13	1.5%
			4000	213	75	40000	14	1.6%
2-GATE SORTS	436		6000	243	112	44000	9	1.0%
DETECTO	SORTS	FREQ%	8000	280	149	48000	12	1.4%
8			10000	214	187	52000	3	0.3%
9	62	14.2%	12000	151	224	56000	7	0.8%
10	76	17.4%	14000	104	261	60000	8	0.9%
11	111	25.5%	16000	40	299	64000	6	0.7%
12	86	19.7%	18000	19	336	68000	5	0.6%
13	58	13.3%	20000	6	373	72000	6	0.7%
14	36	8.3%	22000	0	410	76000	2	0.2%
15	7	1.6%	24000	0	448	80000	2	0.2%
TOTAL	436		26000	0	485	84000	1	0.1%
			>28000	0	0	>84000	15	1.7%
			TOTAL	1512		TOTAL	880	
HPE	882		GATE1	880				
MPE	1100		GATE2	436				
DISE	1262							

REC CODE EXPLANATION

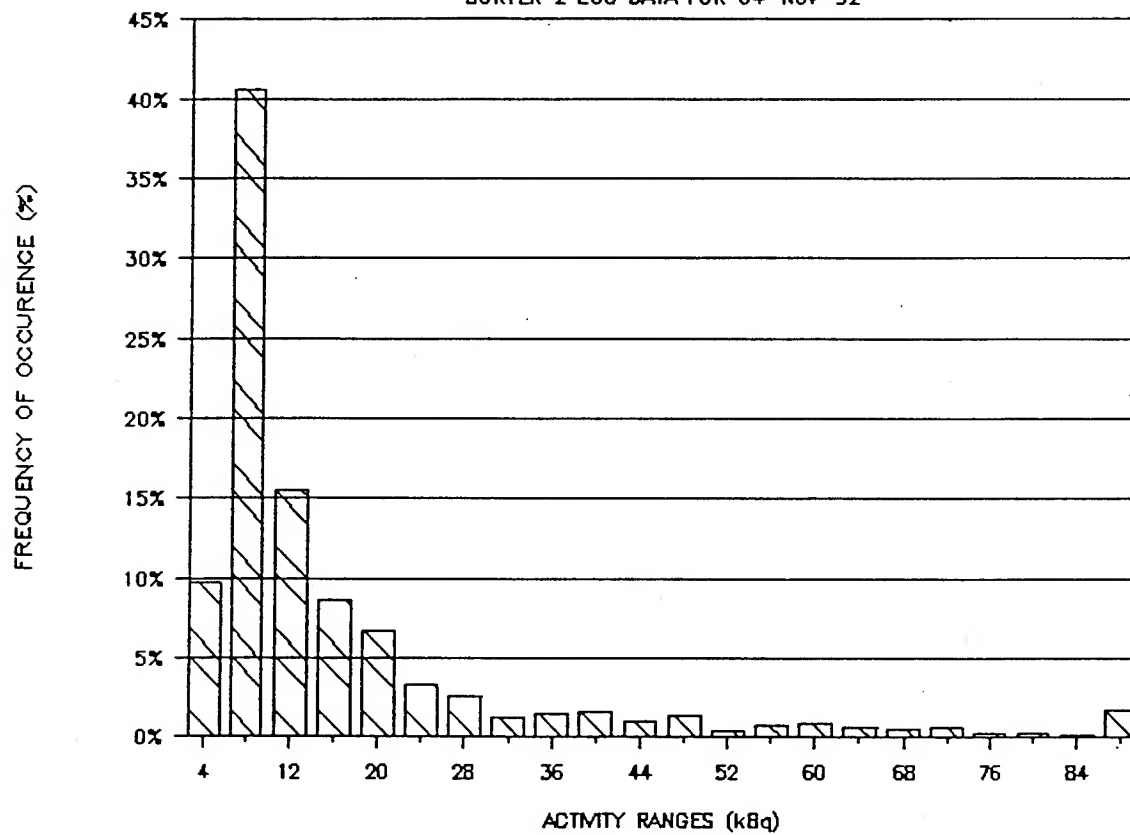
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 04-Nov-92



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 04-Nov-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 03-Nov-92

AVERAGE BACKGROUND COUNT RATE 0.79 ± 0.03 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	1.88 tons	75.4 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	46.9 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		97.6%
EQUIVALENT SOIL-IN-GROUND	1.49 yd³	59.8 yd³ 61.3 yd³/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	20,038 kBq
MAXIMUM/SORT	511 kBq
MINIMUM/SORT	2.5 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	7,683 kBq	5,347 kBq
MAXIMUM/SORT	299 kBq	19 kBq
MINIMUM/SORT	0 Bq	-9 kBq
SPECIFIC ACTIVITY	4,092 Bq/kg	71 Bq/kg

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	07:51 AM	
PLANT STARTUP TIME		0.85 hr
PROCESSING END	05:00 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.51 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		9.15 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		8.02 hr
TOTAL SYSTEM PAUSE TIME		0.00 hr
TOTAL DOWNTIME (MAX-ACTUAL)		1.13 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		80.1%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,627
NONPROCESS RECORDS (Test, calibration, etc)	57

20-SEC PROCESS RECORDS	1,443
TOTAL SORT	11 MD>0 & MND=0
NO SORT	697 AD=0 & MD=0 & MND>0
SOME SORT	735 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	2
AD=0 & MD	0
AD<0 & MD	0

JA SOIL CLEANUP PLANT LOG SUMMARY

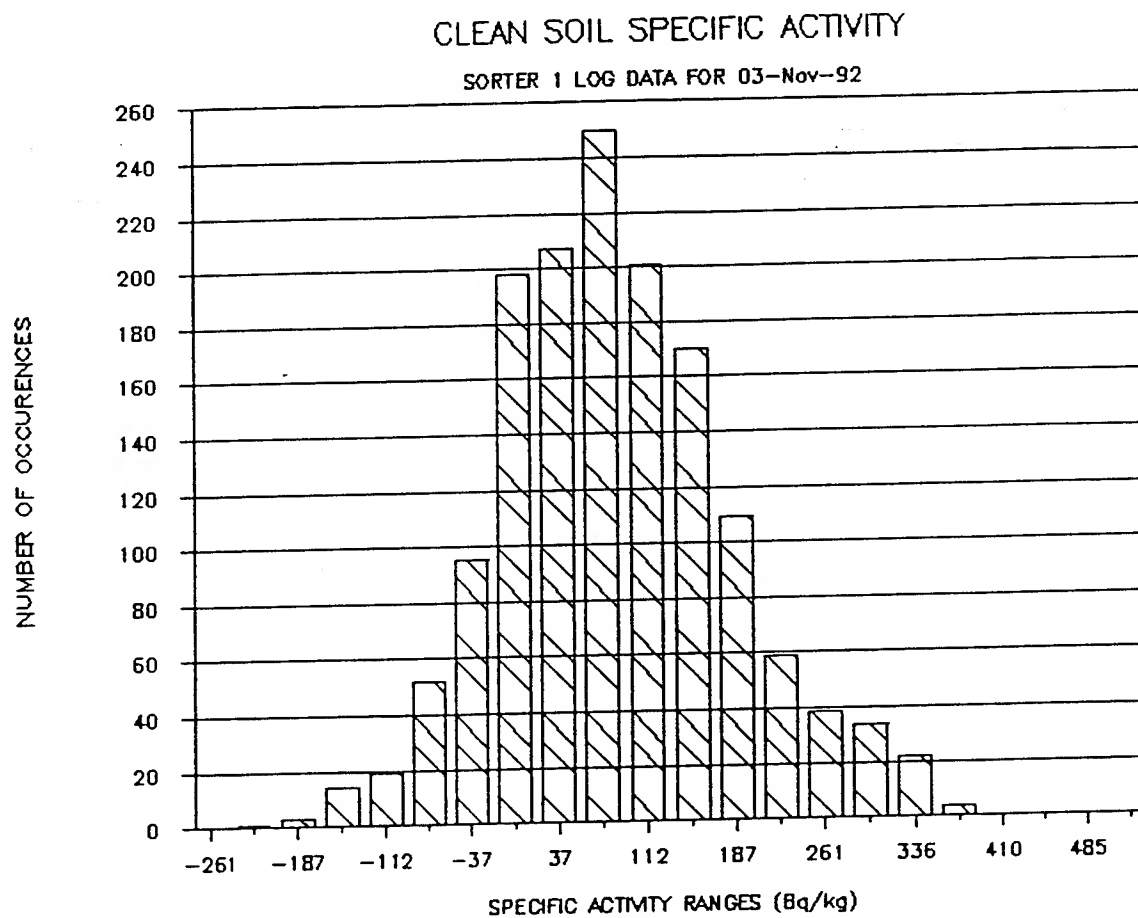
2-SEC COUNT PERIODS 14,430
 2-SEC RECORDS WITH SORTS 1,184 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	251	83.1%
3 DETECTORS	43	14.2%
4 DETECTORS	8	2.6%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	302	

NET 2-SEC RECORDS WITH SORTS 882
 2-SEC PERIODS WITH NO SORTS 13,548
 AVG TIME BETWEEN 2-SEC SORTS 32.7 sec

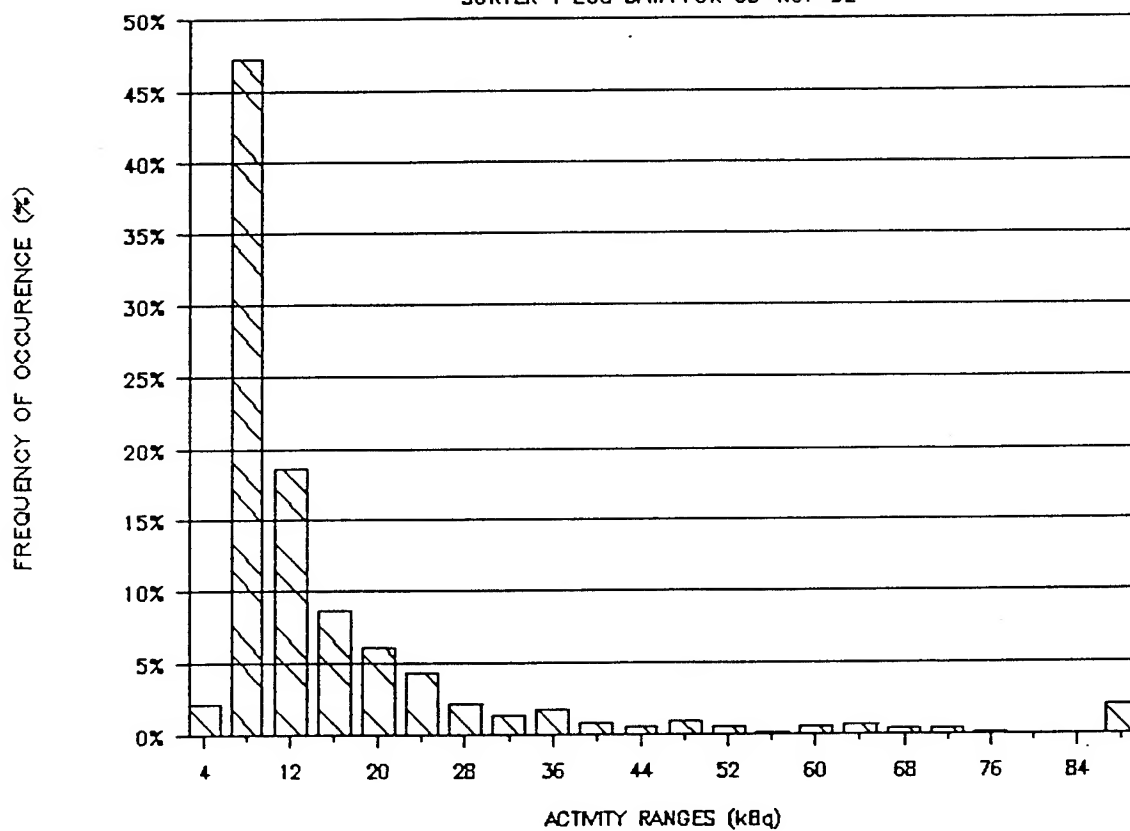
1-GATE SORTS	596	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	15	2.5%	-14000	0	-261	4000	27	2.2%
2	61	10.0%	-12000	1	-224	8000	570	47.2%
3	88	14.5%	-10000	3	-187	12000	224	18.6%
4	105	17.3%	-8000	14	-149	16000	105	8.7%
5	117	19.2%	-6000	19	-112	20000	73	6.0%
6	122	20.1%	-4000	52	-75	24000	52	4.3%
7	78	12.8%	-2000	95	-37	28000	27	2.2%
8	22	3.6%	0	198	0	32000	17	1.4%
TOTAL	608		2000	207	37	36000	22	1.8%
			4000	250	75	40000	10	0.8%
2-GATE SORTS	588		6000	201	112	44000	7	0.6%
DETECTO	SORTS	FREQ%	8000	170	149	48000	12	1.0%
8			10000	109	187	52000	7	0.6%
9	36	6.0%	12000	59	224	56000	2	0.2%
10	81	13.5%	14000	39	261	60000	7	0.6%
11	102	17.0%	16000	34	299	64000	8	0.7%
12	107	17.9%	18000	22	336	68000	5	0.4%
13	121	20.2%	20000	4	373	72000	5	0.4%
14	101	16.9%	22000	0	410	76000	2	0.2%
15	51	8.5%	24000	0	448	80000	0	0.0%
TOTAL	599		26000	0	485	84000	1	0.1%
			>28000	0	0	>84000	24	2.0%
			TOTAL	1477		TOTAL	1207	
HPE	1196		GATE1	1184				
MPE	791		GATE2	588				
DISE	820							

REC CODE EXPLANATION



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 03-Nov-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 03-Nov-92

AVERAGE BACKGROUND COUNT RATE 0.80 ± 0.05 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	2.73 tons	75.0 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	42.2 kg

		96.5%
WEIGHT RECOVERY OR VOLUME RECOVERY		
EQUIVALENT SOIL-IN-GROUND	2.16 yd ³	59.4 yd ³ 61.6 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	27,236 kBq
MAXIMUM/SORT	2,044 kBq
MINIMUM/SORT	2.3 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	11,910 kBq	7,257 kBq
MAXIMUM/SORT	1400 kBq	19 kBq
MINIMUM/SORT	0 Bq	-12 kBq
SPECIFIC ACTIVITY	4,370 Bq/kg	97 Bq/kg

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	07:51 AM	
PLANT STARTUP TIME		0.85 hr
PROCESSING END	05:04 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.43 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		9.23 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		8.06 hr
TOTAL SYSTEM PAUSE TIME		0.00 hr
TOTAL DOWNTIME (MAX-ACTUAL)		1.17 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		80.5%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,619
NONPROCESS RECORDS (Test, calibration, etc)	30

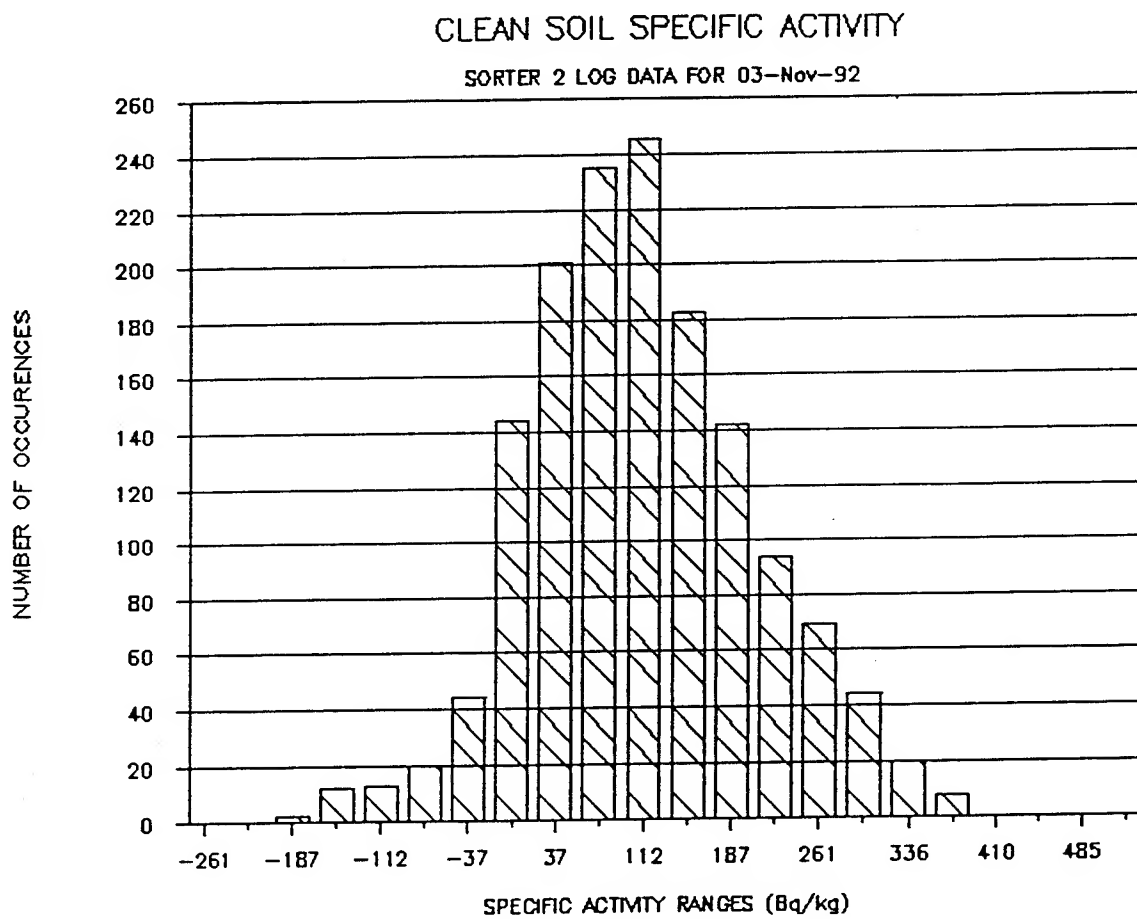
20-SEC PROCESS RECORDS	1,450
TOTAL SORT	23 MD>0 & MND=0
NO SORT	601 AD=0 & MD=0 & MND>0
SOME SORT	826 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	0
AD=0 & MD	0
AD<0 & MD	0

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 14,500
 2-SEC RECORDS WITH SORTS 1,169 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 255 75.9%
 3 DETECTORS 58 17.3%
 4 DETECTORS 15 4.5%
 5 DETECTORS 5 1.5%
 6 DETECTORS 3 0.9%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 336
 NET 2-SEC RECORDS WITH SORTS 833
 2-SEC PERIODS WITH NO SORTS 13,667
 AVG TIME BETWEEN 2-SEC SORTS 34.8 sec

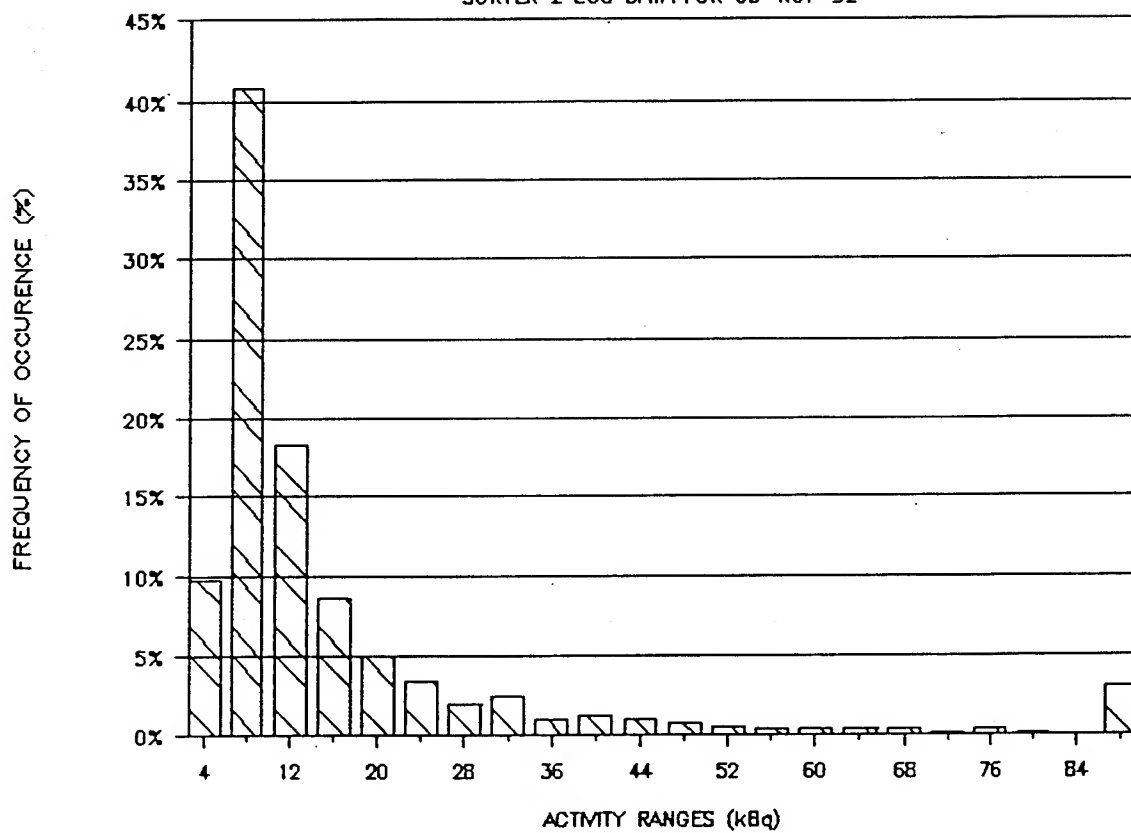
1-GATE SORTS	606	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	28	4.6%	-14000	0	-261	4000	114	9.7%
2	98	16.1%	-12000	0	-224	8000	478	40.8%
3	119	19.6%	-10000	2	-187	12000	214	18.3%
4	124	20.4%	-8000	12	-149	16000	101	8.6%
5	95	15.6%	-6000	13	-112	20000	58	4.9%
6	86	14.1%	-4000	20	-75	24000	40	3.4%
7	42	6.9%	-2000	44	-37	28000	23	2.0%
8	16	2.6%	0	144	0	32000	29	2.5%
TOTAL	608		2000	201	37	36000	11	0.9%
			4000	235	75	40000	15	1.3%
2-GATE SORTS	563	6000	246	112	44000	12	1.0%	44
DETECTO	SORTS	FREQ%	8000	183	149	48000	9	0.8%
8			10000	142	187	52000	6	0.5%
9	55	9.8%	12000	94	224	56000	5	0.4%
10	99	17.6%	14000	69	261	60000	4	0.3%
11	130	23.0%	16000	44	299	64000	5	0.4%
12	104	18.4%	18000	20	336	68000	4	0.3%
13	79	14.0%	20000	8	373	72000	2	0.2%
14	77	13.7%	22000	0	410	76000	4	0.3%
15	20	3.5%	24000	0	448	80000	2	0.2%
TOTAL	564		26000	0	485	84000	0	0.0%
			>28000	0	0	>84000	36	3.1%
			TOTAL	1477		TOTAL	1172	
HPE	1148		GATE1	1169				
MPE	1192		GATE2	563				
DISE	1730							

REC CODE EXPLANATION



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 03-Nov-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 02-Nov-92

AVERAGE BACKGROUND COUNT RATE 0.79 ± 0.03 c/sec

SORTER SOIL DENSITY 1.15 tons/m³

GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	1.83 tons	76.5 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	44.2 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		97.7%
EQUIVALENT SOIL-IN-GROUND	1.45 yd ³	60.6 yd ³ 62.1 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	24,309 kBq
MAXIMUM/SORT	893 kBq
MINIMUM/SORT	3.1 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

	8,755 kBq	5,057 kBq
MAXIMUM/SORT	564 kBq	18 kBq
MINIMUM/SORT	0 Bq	-12 kBq
SPECIFIC ACTIVITY	4,775 Bq/kg	66 Bq/kg

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	07:37 AM	
PLANT STARTUP TIME		0.62 hr
PROCESSING END	04:54 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.60 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		9.29 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		8.12 hr
TOTAL SYSTEM PAUSE TIME		0.00 hr
TOTAL DOWNTIME (MAX-ACTUAL)		1.17 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		81.2%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 2,727

NONPROCESS RECORDS (Test, calibration, etc) 21

20-SEC PROCESS RECORDS

TOTAL SORT	1,462
NO SORT	9 MD>0 & MND=0
SOME SORT	676 AD=0 & MD=0 & MND>0
UNEXPLAINED RECORDS	777 AD>0&0<MD<MNDmax&MND<MNDmax
0<AD<1kBq & MD>0	0
AD=0 & MD	0
AD<0 & MD	0

JA SOIL CLEANUP PLANT LOG SUMMARY

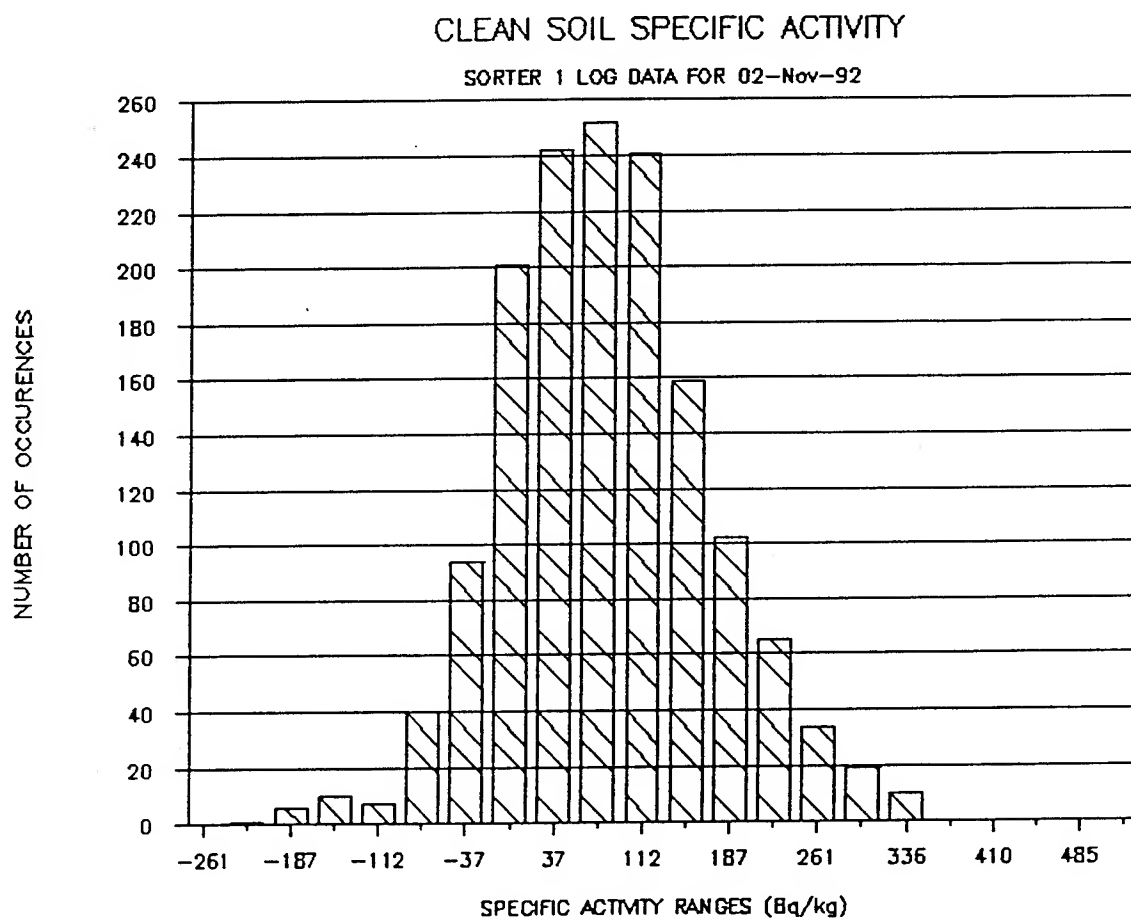
2-SEC COUNT PERIODS 14,620
 2-SEC RECORDS WITH SORTS 1,265 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	283	84.2%
3 DETECTORS	46	13.7%
4 DETECTORS	7	2.1%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	336	

NET 2-SEC RECORDS WITH SORTS 929
 2-SEC PERIODS WITH NO SORTS 13,691
 AVG TIME BETWEEN 2-SEC SORTS 31.5 sec

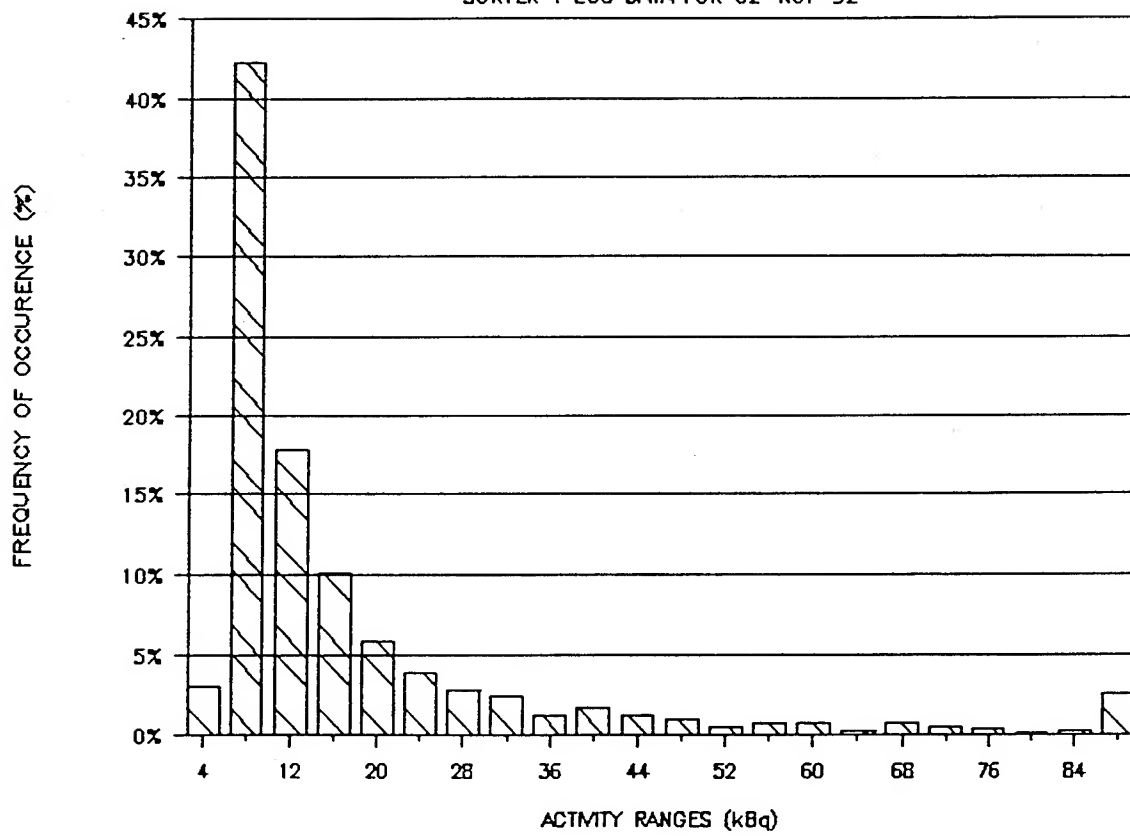
1-GATE SORTS		620	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%		ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	20	3.2%	-14000	0	-261	4000	39	3.1%	4
2	65	10.5%	-12000	1	-224	8000	534	42.2%	8
3	103	16.6%	-10000	6	-187	12000	225	17.8%	12
4	103	16.6%	-8000	10	-149	16000	128	10.1%	16
5	112	18.1%	-6000	7	-112	20000	74	5.8%	20
6	109	17.6%	-4000	40	-75	24000	49	3.9%	24
7	89	14.4%	-2000	94	-37	28000	35	2.8%	28
8	19	3.1%	0	201	0	32000	31	2.5%	32
TOTAL	620		2000	242	37	36000	15	1.2%	36
			4000	252	75	40000	21	1.7%	40
2-GATE SORTS		645	6000	241	112	44000	16	1.3%	44
DETECTO	SORTS	FREQ%	8000	159	149	48000	12	0.9%	48
8			10000	102	187	52000	6	0.5%	52
9	49	7.6%	12000	65	224	56000	9	0.7%	56
10	82	12.7%	14000	34	261	60000	10	0.8%	60
11	116	18.0%	16000	19	299	64000	4	0.3%	64
12	112	17.4%	18000	10	336	68000	9	0.7%	68
13	127	19.7%	20000	0	373	72000	6	0.5%	72
14	107	16.6%	22000	0	410	76000	5	0.4%	76
15	52	8.1%	24000	0	448	80000	2	0.2%	80
TOTAL	645		26000	0	485	84000	3	0.2%	84
			>28000	0	0	>84000	32	2.5%	>84
			TOTAL	1483		TOTAL	1265		
HPE	1265		GATE1	1265					
MPE	802		GATE2	645					
DISE	673								

REC CODE EXPLANATION



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 02-Nov-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 02-Nov-92

AVERAGE BACKGROUND COUNT RATE 0.81 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	2.81 tons	75.6 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	42.8 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		96.4%
EQUIVALENT SOIL-IN-GROUND	2.22 yd ³	60.0 yd ³ 62.2 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	22,558 kBq
MAXIMUM/SORT	944 kBq
MINIMUM/SORT	2.3 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	12,980 kBq	7,099 kBq
MAXIMUM/SORT	590 kBq	19 kBq
MINIMUM/SORT	0 Bq	-13 kBq
SPECIFIC ACTIVITY	4,627 Bq/kg	94 Bq/kg

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	07:37 AM	
PLANT STARTUP TIME		0.62 hr
PROCESSING END	04:56 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.57 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		9.31 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		8.13 hr
TOTAL SYSTEM PAUSE TIME		0.00 hr
TOTAL DOWNTIME (MAX-ACTUAL)		1.18 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		81.3%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,559
NONPROCESS RECORDS (Test, calibration, etc)	13

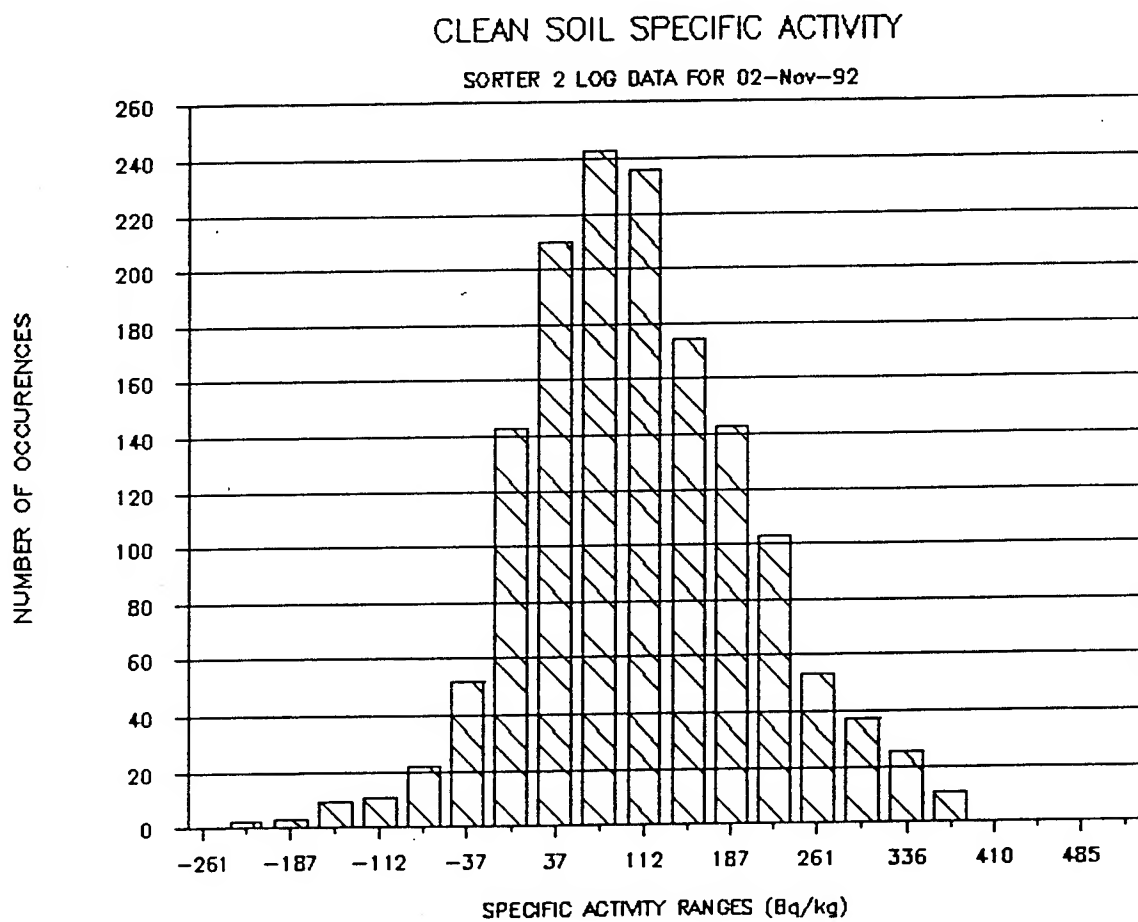
20-SEC PROCESS RECORDS	1,464
TOTAL SORT	13 MD>0 & MND=0
NO SORT	531 AD=0 & MD=0 & MND>0
SOME SORT	920 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	0
AD=0 & MD	0
AD<0 & MD	0

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 14,640
 2-SEC RECORDS WITH SORTS 1,095 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 257 75.6%
 3 DETECTORS 66 19.4%
 4 DETECTORS 15 4.4%
 5 DETECTORS 1 0.3%
 6 DETECTORS 1 0.3%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 340
 NET 2-SEC RECORDS WITH SORTS 755
 2-SEC PERIODS WITH NO SORTS 13,885
 AVG TIME BETWEEN 2-SEC SORTS 38.8 sec

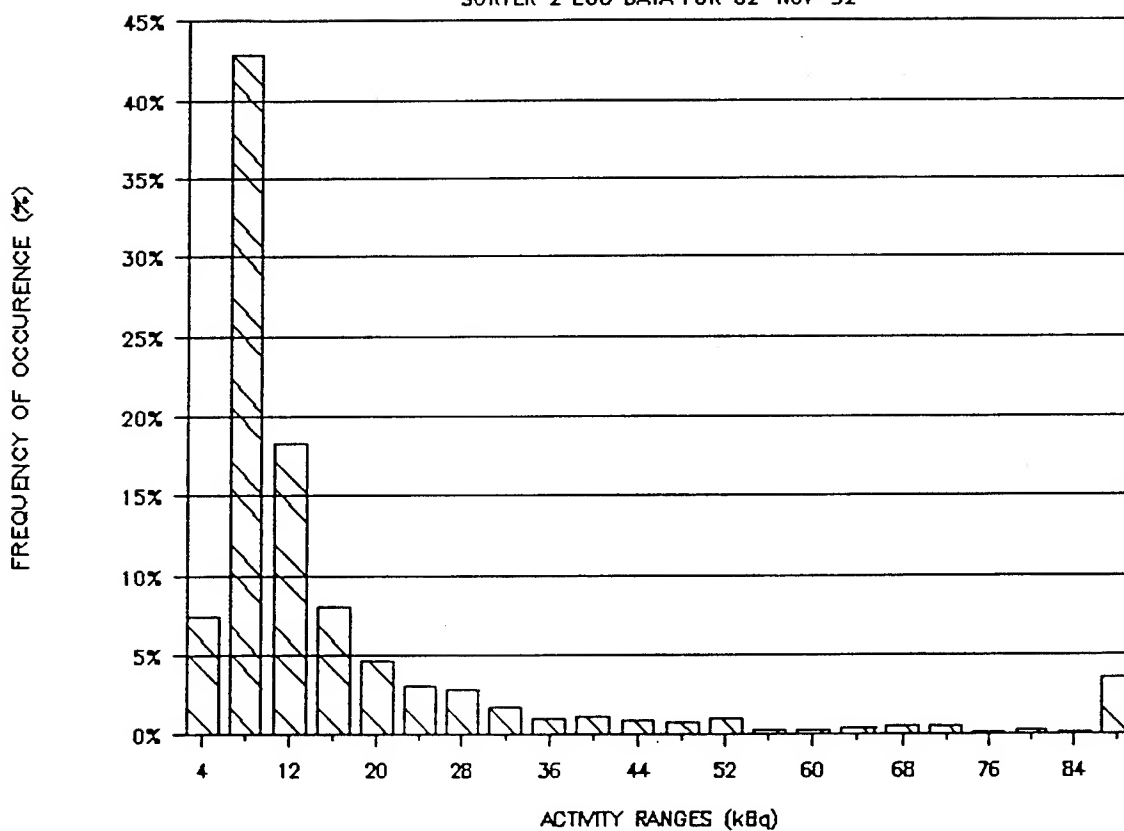
1-GATE SORTS		570	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	30	5.3%	-14000	0	-261	4000	81	7.4%	4
2	112	19.6%	-12000	2	-224	8000	470	42.9%	8
3	123	21.6%	-10000	3	-187	12000	201	18.4%	12
4	106	18.6%	-8000	9	-149	16000	88	8.0%	16
5	86	15.1%	-6000	11	-112	20000	51	4.7%	20
6	74	13.0%	-4000	22	-75	24000	34	3.1%	24
7	34	6.0%	-2000	52	-37	28000	31	2.8%	28
8	5	0.9%	0	143	0	32000	19	1.7%	32
TOTAL	570		2000	210	37	36000	11	1.0%	36
			4000	243	75	40000	12	1.1%	40
2-GATE SORTS		525	6000	236	112	44000	10	0.9%	44
DETECTO	SORTS	FREQ%	8000	174	149	48000	9	0.8%	48
8			10000	143	187	52000	11	1.0%	52
9	67	12.8%	12000	103	224	56000	3	0.3%	56
10	93	17.7%	14000	53	261	60000	3	0.3%	60
11	129	24.6%	16000	37	299	64000	4	0.4%	64
12	95	18.1%	18000	25	336	68000	6	0.5%	68
13	79	15.0%	20000	11	373	72000	5	0.5%	72
14	50	9.5%	22000	0	410	76000	2	0.2%	76
15	12	2.3%	24000	0	448	80000	3	0.3%	80
TOTAL	525		26000	0	485	84000	2	0.2%	84
			>28000	0	0	>84000	39	3.6%	>84
			TOTAL	1477		TOTAL	1095		
HPE	1080		GATE1	1095					
MPE	2125		GATE2	525					
DISE	985								

REC CODE EXPLANATION



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 02-Nov-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 31-Oct-92

AVERAGE BACKGROUND COUNT RATE	0.80 ± 0.01 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		0.98 tons	73.0 tons
MAXIMUM/SORT		8 kg	53.6 kg
MINIMUM/SORT		0.7 kg	45.5 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			98.7%
EQUIVALENT SOIL-IN-GROUND	0.78 yd ³	57.8 yd ³	58.6 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	21,859 kBq		
MAXIMUM/SORT	1,072 kBq		
MINIMUM/SORT	3.0 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	7,372 kBq	3,276 kBq	
MAXIMUM/SORT	606 kBq	19 kBq	
MINIMUM/SORT	0 Bq	-15 kBq	
SPECIFIC ACTIVITY	7,491 Bq/kg	45 Bq/kg	
WORK DAY			
WORK DAY START	07:00 AM		
PROCESSING START	07:49 AM		
PLANT STARTUP TIME		0.83 hr	
PROCESSING END	04:31 PM		
WORK DAY END	05:30 PM		
PLANT SHUTDOWN TIME		0.98 hr	
LUNCH PERIOD		0.5 hr	
WORK HOURS		10.0 hr	
MAX PROCESS HOURS (END-START)		8.69 hr	
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		7.67 hr	
TOTAL SYSTEM PAUSE TIME		0.00 hr	
TOTAL DOWNTIME (MAX-ACTUAL)		1.03 hr	
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		76.6%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,296		
NONPROCESS RECORDS (Test, calibration, etc)	45		
20-SEC PROCESS RECORDS	1,380		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	785 AD=0 & MD=0 & MND>0		
SOME SORT	591 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	4		
0<AD<1kBq & MD>0	2		
AD=0 & MD	4		
AD<0 & MD	0		

JA SOIL CLEANUP PLANT LOG SUMMARY

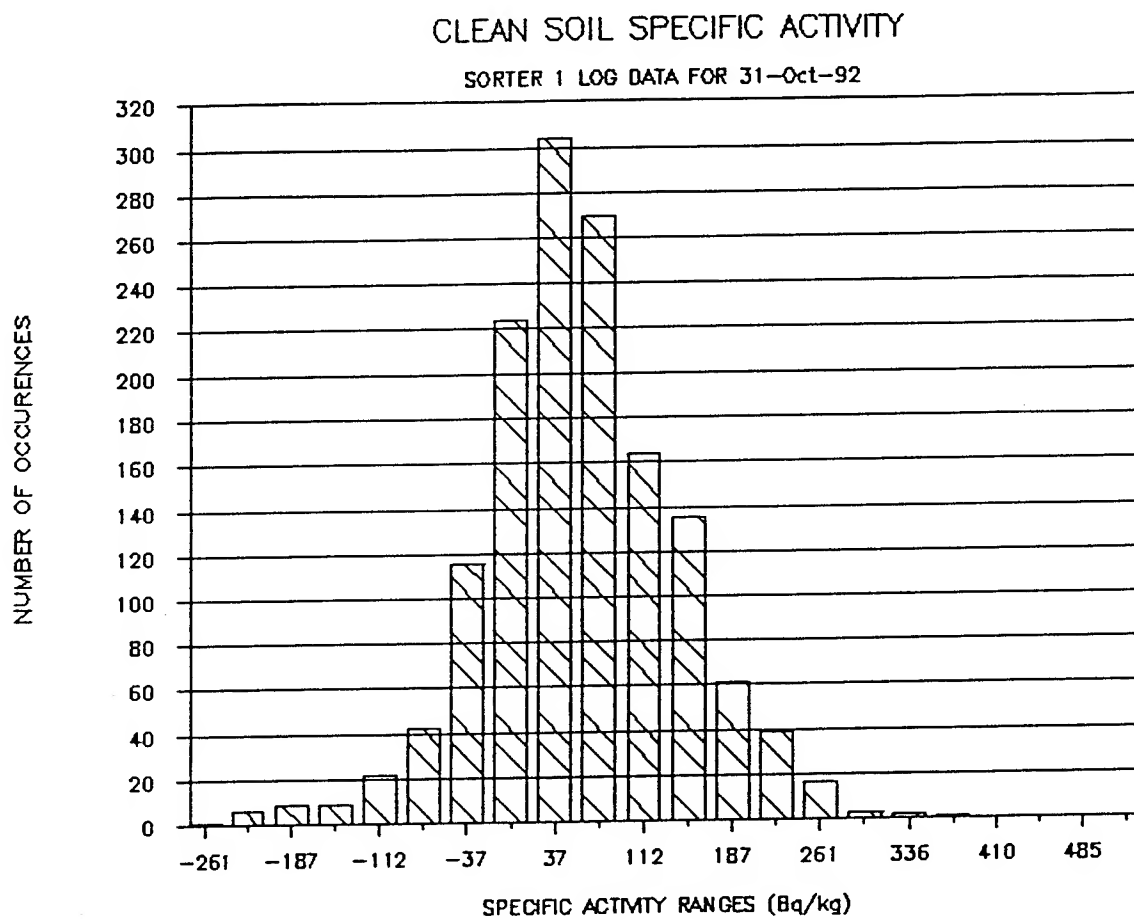
2-SEC COUNT PERIODS 13,800
 2-SEC RECORDS WITH SORTS 916 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 213 80.1%
 3 DETECTORS 47 17.7%
 4 DETECTORS 5 1.9%
 5 DETECTORS 1 0.4%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 266

NET 2-SEC RECORDS WITH SORTS 650
 2-SEC PERIODS WITH NO SORTS 13,150
 AVG TIME BETWEEN 2-SEC SORTS 42.5 sec

1-GATE SORTS		466	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%		ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	5	1.1%	-14000	1	-261	4000	22	2.4%	4
2	22	4.7%	-12000	6	-224	8000	380	41.5%	8
3	69	14.8%	-10000	9	-187	12000	163	17.8%	12
4	79	17.0%	-8000	9	-149	16000	95	10.4%	16
5	84	18.0%	-6000	22	-112	20000	51	5.6%	20
6	103	22.1%	-4000	42	-75	24000	38	4.1%	24
7	78	16.7%	-2000	116	-37	28000	30	3.3%	28
8	26	5.6%	0	224	0	32000	16	1.7%	32
TOTAL	466		2000	304	37	36000	12	1.3%	36
			4000	270	75	40000	9	1.0%	40
2-GATE SORTS		450	6000	164	112	44000	12	1.3%	44
DETECTO	SORTS	FREQ%	8000	135	149	48000	9	1.0%	48
8			10000	61	187	52000	7	0.8%	52
9	12	2.7%	12000	39	224	56000	3	0.3%	56
10	48	10.7%	14000	17	261	60000	6	0.7%	60
11	78	17.3%	16000	3	299	64000	7	0.8%	64
12	97	21.6%	18000	2	336	68000	3	0.3%	68
13	88	19.6%	20000	1	373	72000	6	0.7%	72
14	77	17.1%	22000	0	410	76000	3	0.3%	76
15	50	11.1%	24000	0	448	80000	4	0.4%	80
TOTAL	450		26000	0	485	84000	2	0.2%	84
			>28000	0	0	>84000	38	4.1%	>84
			TOTAL	1425		TOTAL	916		

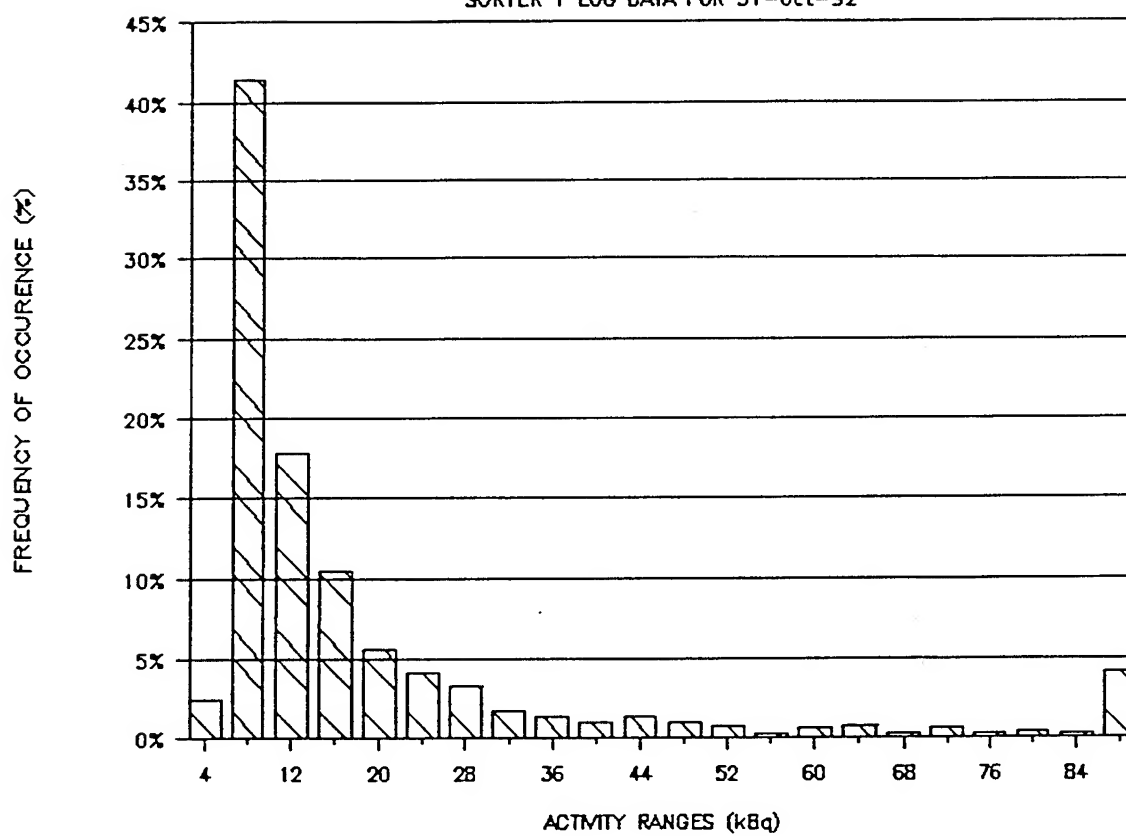
HPE 908 GATE1 916
 MPE 563 GATE2 450
 DISE 0

REC CODE EXPLANATION



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 31-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 31-Oct-92

AVERAGE BACKGROUND COUNT RATE	0.83 ± 0.04 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		1.52 tons	74.1 tons
MAXIMUM/SORT		53.6 kg	53.6 kg
MINIMUM/SORT		0.7 kg	44.2 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			98.0%
EQUIVALENT SOIL-IN-GROUND		1.21 yd ³	58.7 yd ³ 59.9 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL		19,209 kBq	
MAXIMUM/SORT		672 kBq	
MINIMUM/SORT		2.4 kBq	
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT		8,478 kBq	6,514 kBq
MINIMUM/SORT		499 kBq	19 kBq
SPECIFIC ACTIVITY		0 Bq	-11 kBq
		5,563 Bq/kg	88 Bq/kg
WORK DAY			
WORK DAY START	07:00 AM		
PROCESSING START	07:49 AM		
PLANT STARTUP TIME		0.83 hr	
PROCESSING END	04:42 PM		
WORK DAY END	05:30 PM		
PLANT SHUTDOWN TIME		0.80 hr	
LUNCH PERIOD		0.5 hr	
WORK HOURS		10.0 hr	
MAX PROCESS HOURS (END-START)		8.88 hr	
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		7.84 hr	
TOTAL SYSTEM PAUSE TIME		0.00 hr	
TOTAL DOWNTIME (MAX-ACTUAL)		1.04 hr	
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		78.3%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)		2,272	
NONPROCESS RECORDS (Test, calibration, etc)		14	
20-SEC PROCESS RECORDS		1,411	
TOTAL SORT		6 MD>0 & MND=0	
NO SORT		684 AD=0 & MD=0 & MND>0	
SOME SORT		719 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS		2	
0<AD<1kBq & MD>0	0		
AD=0 & MD	2		
AD<0 & MD	0		

JA SOIL CLEANUP PLANT LOG SUMMARY

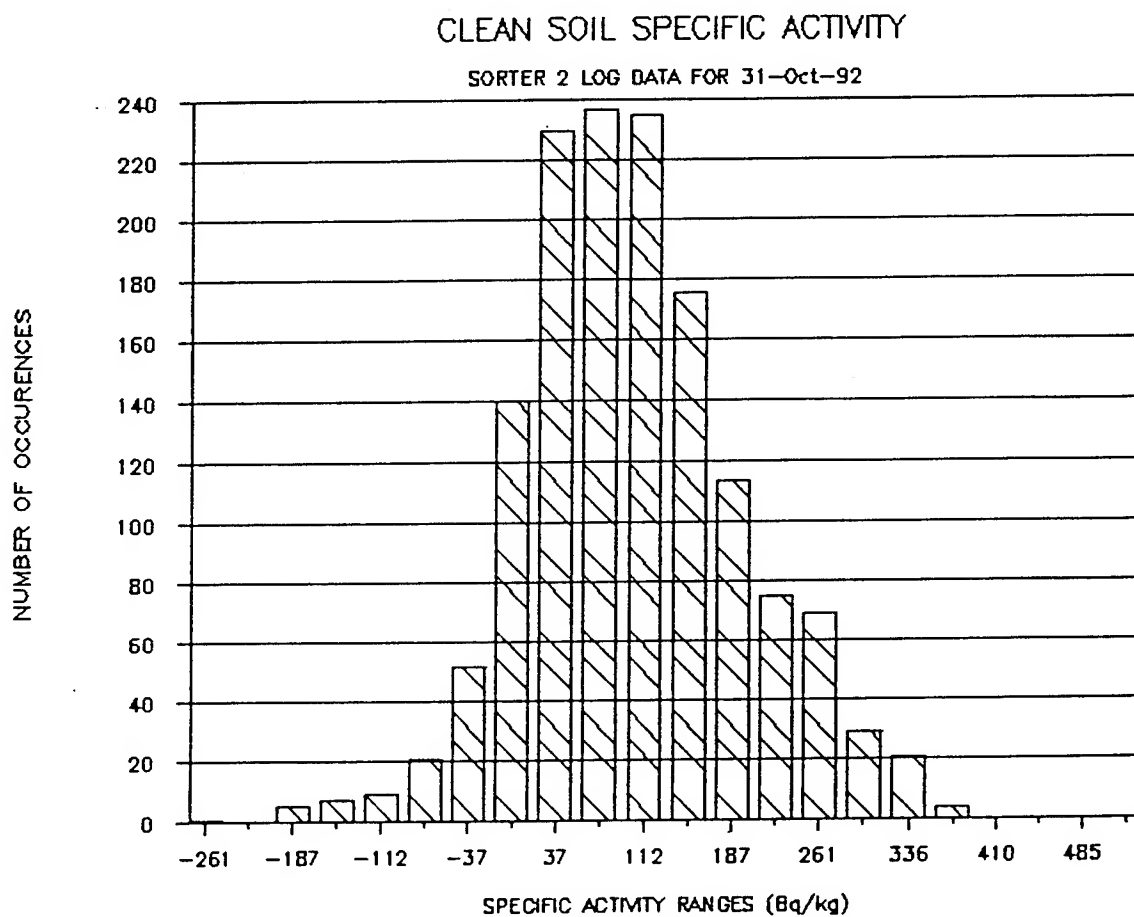
2-SEC COUNT PERIODS 14,110
 2-SEC RECORDS WITH SORTS 861 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 193 75.1%
 3 DETECTORS 45 17.5%
 4 DETECTORS 12 4.7%
 5 DETECTORS 5 1.9%
 6 DETECTORS 2 0.8%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 257

NET 2-SEC RECORDS WITH SORTS 604
 2-SEC PERIODS WITH NO SORTS 13,506
 AVG TIME BETWEEN 2-SEC SORTS 46.7 sec

1-GATE SORTS	439	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	21	4.8%	-14000	1	-261	4000	80	9.3%
2	52	11.8%	-12000	0	-224	8000	358	41.6%
3	89	20.3%	-10000	5	-187	12000	133	15.4%
4	92	21.0%	-8000	7	-149	16000	82	9.5%
5	85	19.4%	-6000	9	-112	20000	39	4.5%
6	61	13.9%	-4000	21	-75	24000	29	3.4%
7	33	7.5%	-2000	52	-37	28000	17	2.0%
8	6	1.4%	0	140	0	32000	14	1.6%
TOTAL	439		2000	230	37	36000	8	0.9%
			4000	237	75	40000	14	1.6%
2-GATE SORTS	422	6000	235	112	44000	8	0.9%	44
DETECTO	SORTS	FREQ%	8000	176	149	48000	3	0.3%
8			10000	114	187	52000	4	0.5%
9	44	10.4%	12000	75	224	56000	4	0.5%
10	55	13.0%	14000	69	261	60000	4	0.5%
11	97	23.0%	16000	29	299	64000	9	1.0%
12	90	21.3%	18000	21	336	68000	3	0.3%
13	76	18.0%	20000	4	373	72000	2	0.2%
14	50	11.8%	22000	0	410	76000	3	0.3%
15	10	2.4%	24000	0	448	80000	3	0.3%
TOTAL	422		26000	0	485	84000	1	0.1%
			>28000	0	0	>84000	43	5.0%
			TOTAL	1425		TOTAL	861	

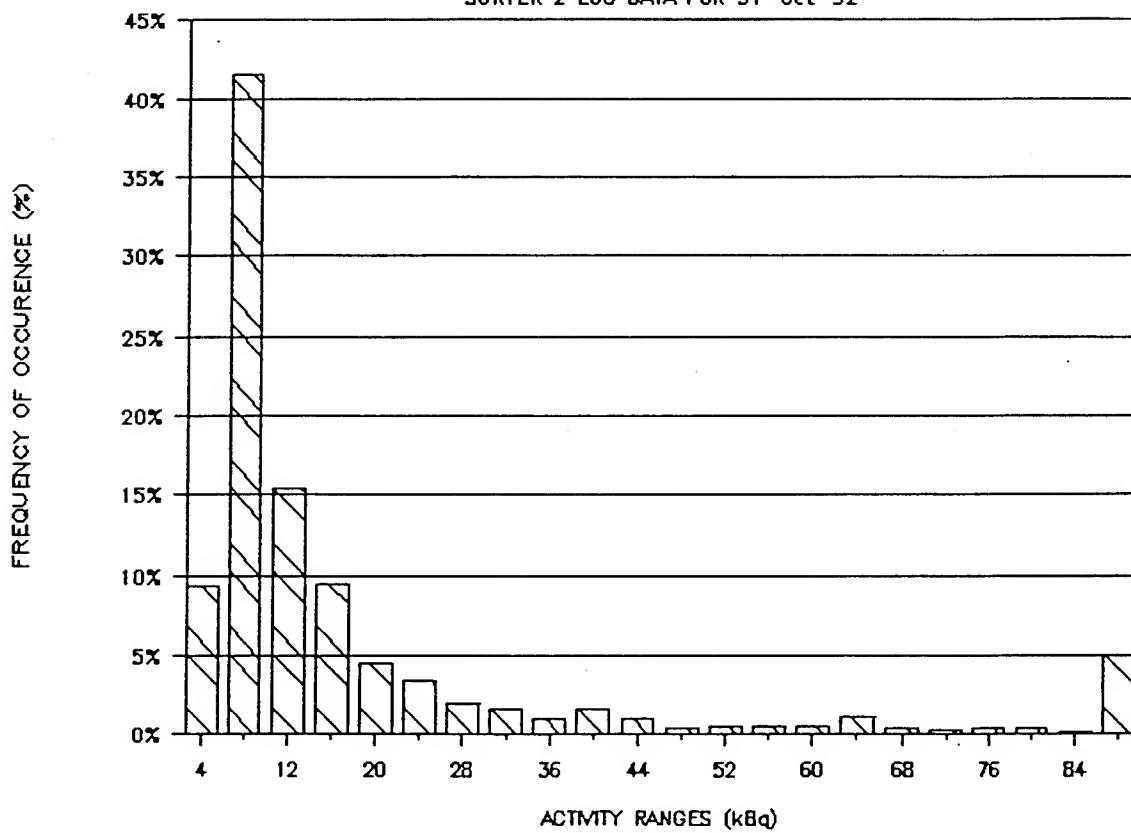
HPE 859 GATE1 861
 MPE 956 GATE2 422
 DISE 460

REC CODE EXPLANATION



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 31-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 30-Oct-92

AVERAGE BACKGROUND COUNT RATE 0.79 ± 0.02 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.92 tons	75.2 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	46.9 kg

			98.8%
WEIGHT RECOVERY OR VOLUME RECOVERY			
EQUIVALENT SOIL-IN-GROUND	0.73 yd ³	59.6 yd ³	60.3 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	15,324 kBq
MAXIMUM/SORT	613 kBq
MINIMUM/SORT	3.1 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	5,324 kBq	1,052 kBq
MAXIMUM/SORT	405 kBq	18 kBq
MINIMUM/SORT	0 Bq	-13 kBq
SPECIFIC ACTIVITY	5,785 Bq/kg	14 Bq/kg

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	07:52 AM	
PLANT STARTUP TIME		0.88 hr
PROCESSING END	04:51 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.65 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		8.98 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		7.89 hr
TOTAL SYSTEM PAUSE TIME		0.00 hr
TOTAL DOWNTIME (MAX-ACTUAL)		1.09 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		78.8%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,117
NONPROCESS RECORDS (Test, calibration, etc)	17

20-SEC PROCESS RECORDS	1,420
TOTAL SORT	4 MD>0 & MND=0
NO SORT	976 AD=0 & MD=0 & MND>0
SOME SORT	440 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	2
AD=0 & MD	0
AD<0 & MD	0

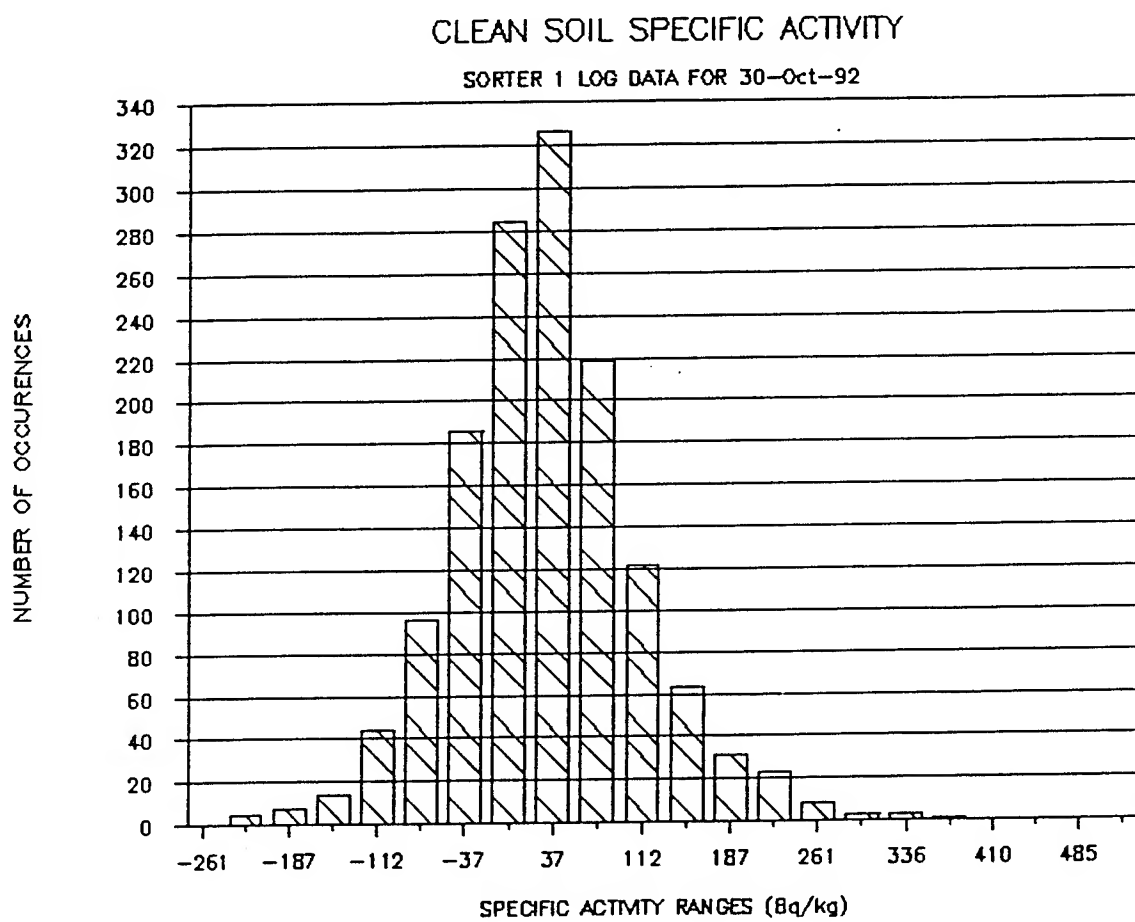
JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 14,200
 2-SEC RECORDS WITH SORTS 697 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 163 78.7%
 3 DETECTORS 35 16.9%
 4 DETECTORS 7 3.4%
 5 DETECTORS 2 1.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 207
 NET 2-SEC RECORDS WITH SORTS 490
 2-SEC PERIODS WITH NO SORTS 13,710
 AVG TIME BETWEEN 2-SEC SORTS 58.0 sec

1-GATE SORTS	354	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	9	2.5%	-14000	0	-261	4000	19	2.7%
2	18	5.1%	-12000	5	-224	8000	292	41.9%
3	44	12.4%	-10000	7	-187	12000	114	16.4%
4	57	16.1%	-8000	14	-149	16000	66	9.5%
5	55	15.5%	-6000	44	-112	20000	35	5.0%
6	80	22.6%	-4000	96	-75	24000	29	4.2%
7	72	20.3%	-2000	186	-37	28000	21	3.0%
8	19	5.4%	0	285	0	32000	11	1.6%
TOTAL	354		2000	327	37	36000	10	1.4%
			4000	219	75	40000	11	1.6%
2-GATE SORTS	343	6000	122	112	44000	8	1.1%	44
DETECTO	SORTS	FREQ%	8000	63	149	48000	8	1.1%
8			10000	31	187	52000	7	1.0%
9	13	3.8%	12000	23	224	56000	4	0.6%
10	33	9.6%	14000	8	261	60000	4	0.6%
11	64	18.7%	16000	3	299	64000	6	0.9%
12	54	15.7%	18000	3	336	68000	6	0.9%
13	57	16.6%	20000	1	373	72000	6	0.9%
14	75	21.9%	22000	0	410	76000	5	0.7%
15	47	13.7%	24000	0	448	80000	3	0.4%
TOTAL	343		26000	0	485	84000	1	0.1%
			>28000	0	0	>84000	31	4.4%
			TOTAL	1437		TOTAL	697	

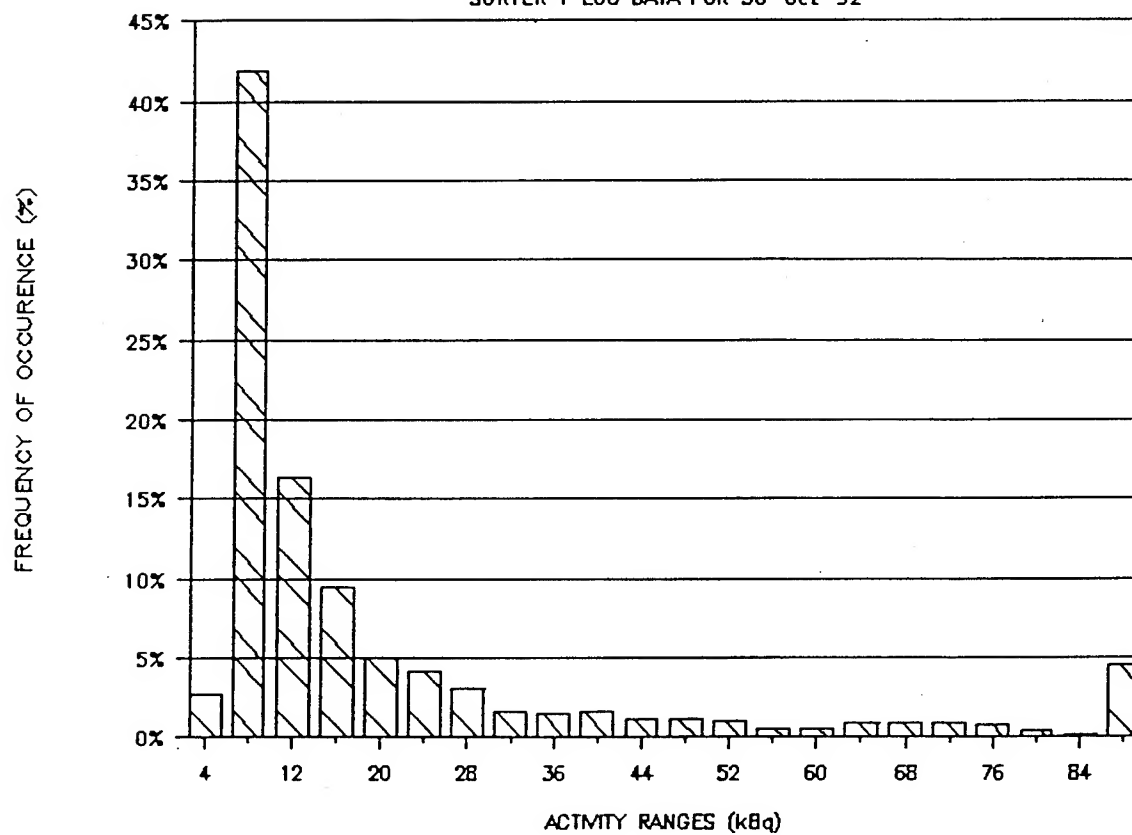
HPE 679 GATE1 697
 MPE 391 GATE2 343
 DISE 304

REC CODE EXPLANATION



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 30-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 30-Oct-92

AVERAGE BACKGROUND COUNT RATE 0.80 ± 0.03 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.87 tons	75.2 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	46.2 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		98.9%
EQUIVALENT SOIL-IN-GROUND	0.69 yd ³	59.6 yd ³ 60.3 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	10,139 kBq
MAXIMUM/SORT	264 kBq
MINIMUM/SORT	2.8 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	4,511 kBq	4,214 kBq
MAXIMUM/SORT	178 kBq	19 kBq
MINIMUM/SORT	0 Bq	-14 kBq
SPECIFIC ACTIVITY	5,195 Bq/kg	56 Bq/kg

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	07:52 AM	
PLANT STARTUP TIME		0.88 hr
PROCESSING END	04:52 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.63 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		9.00 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		7.89 hr
TOTAL SYSTEM PAUSE TIME		0.00 hr
TOTAL DOWNTIME (MAX-ACTUAL)		1.11 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		78.8%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,019
NONPROCESS RECORDS (Test, calibration, etc)	18

20-SEC PROCESS RECORDS	1,420
TOTAL SORT	2 MD>0 & MND=0
NO SORT	878 AD=0 & MD=0 & MND>0
SOME SORT	540 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	2
AD=0 & MD	0
AD<0 & MD	0

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 14,200
 2-SEC RECORDS WITH SORTS 599 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

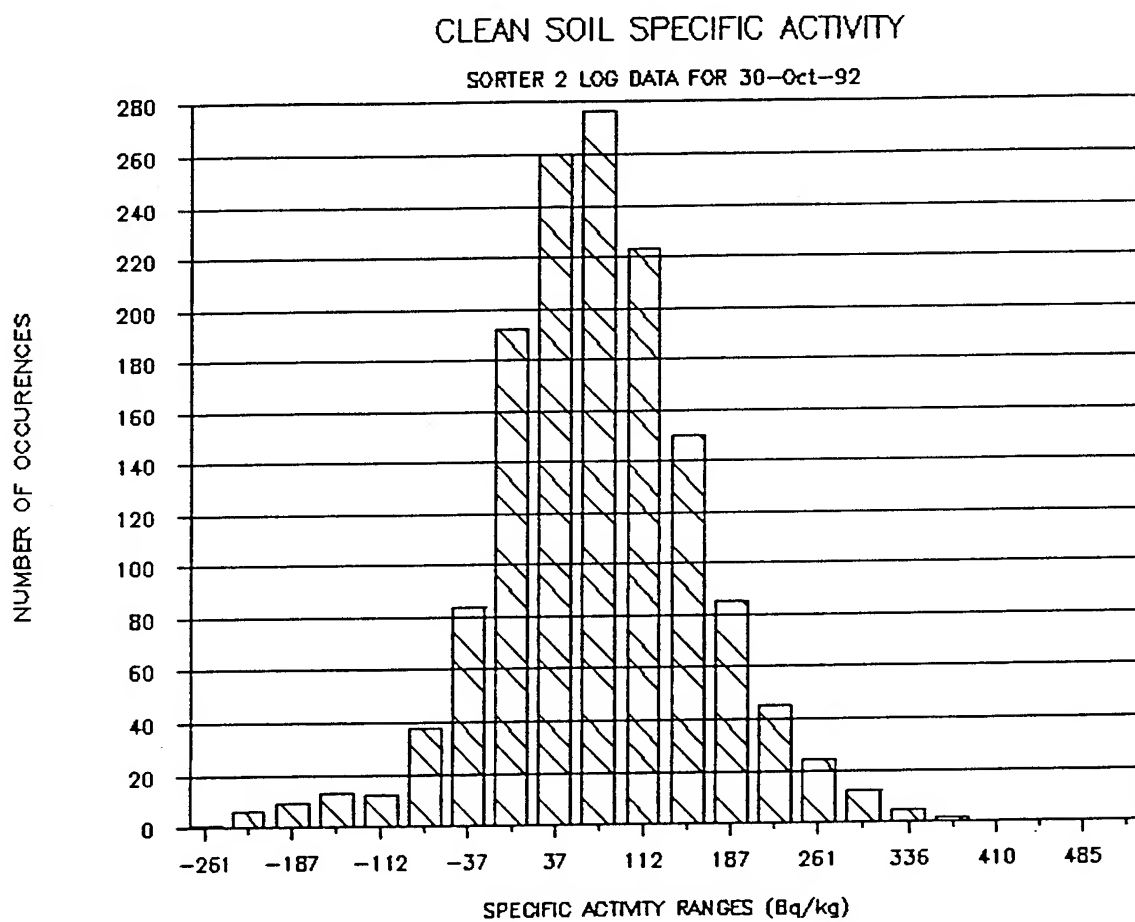
2 DETECTORS	136	85.5%
3 DETECTORS	21	13.2%
4 DETECTORS	2	1.3%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	159	

NET 2-SEC RECORDS WITH SORTS 440
 2-SEC PERIODS WITH NO SORTS 13,760
 AVG TIME BETWEEN 2-SEC SORTS 64.5 sec

1-GATE SORTS	298	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	14	4.7%	-14000	1	-261	4000	43	7.2%
2	38	12.8%	-12000	6	-224	8000	252	42.1%
3	53	17.8%	-10000	9	-187	12000	108	18.0%
4	52	17.4%	-8000	13	-149	16000	60	10.0%
5	44	14.8%	-6000	12	-112	20000	29	4.8%
6	54	18.1%	-4000	38	-75	24000	25	4.2%
7	34	11.4%	-2000	84	-37	28000	10	1.7%
8	9	3.0%	0	192	0	32000	13	2.2%
TOTAL	298		2000	260	37	36000	9	1.5%
			4000	277	75	40000	4	0.7%
2-GATE SORTS	301		6000	223	112	44000	3	0.5%
DETECTO	SORTS	FREQ%	8000	150	149	48000	2	0.3%
8			10000	85	187	52000	3	0.5%
9	29	9.6%	12000	45	224	56000	4	0.7%
10	44	14.6%	14000	24	261	60000	1	0.2%
11	54	17.9%	16000	12	299	64000	2	0.3%
12	57	18.9%	18000	5	336	68000	1	0.2%
13	62	20.6%	20000	2	373	72000	3	0.5%
14	41	13.6%	22000	0	410	76000	1	0.2%
15	14	4.7%	24000	0	448	80000	4	0.7%
TOTAL	301		26000	0	485	84000	3	0.5%
			>28000	0	0	>84000	19	3.2%
			TOTAL	1438		TOTAL	599	

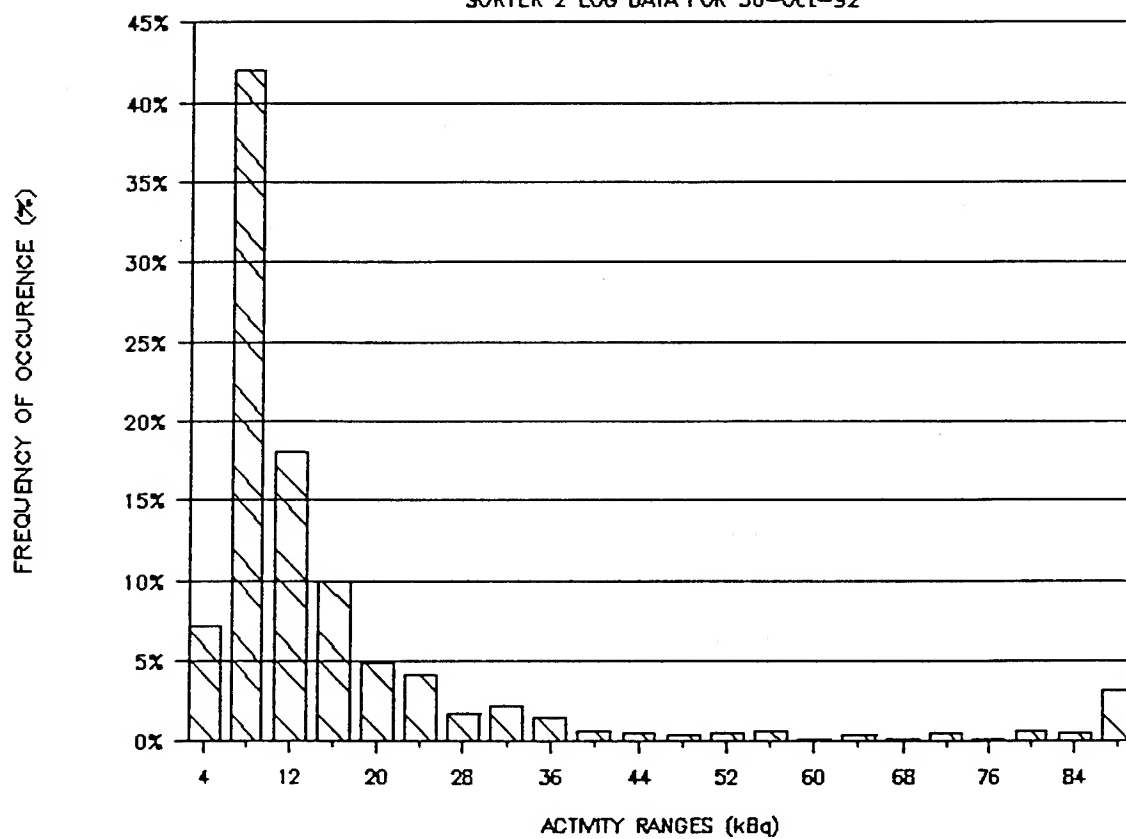
HPE	607	GATE1	599
MPE	548	GATE2	301
DISE	141		

REC CODE EXPLANATION



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 30-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 29-Oct-92

AVERAGE BACKGROUND COUNT RATE 0.78 ± 0.04 c/sec

SORTER SOIL DENSITY 1.15 tons/m³

GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.66 tons	61.3 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	48.2 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		98.9%
EQUIVALENT SOIL-IN-GROUND	0.52 yd ³	48.6 yd ³ 49.1 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	10,490 kBq
MAXIMUM/SORT	355 kBq
MINIMUM/SORT	3.1 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	3,656 kBq	773 kBq
MAXIMUM/SORT	203 kBq	19 kBq
MINIMUM/SORT	0 Bq	-10 kBq
SPECIFIC ACTIVITY	5,545 Bq/kg	13 Bq/kg

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	09:15 AM	
PLANT STARTUP TIME		2.26 hr
PROCESSING END	04:42 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.80 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		7.44 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		6.42 hr
TOTAL SYSTEM PAUSE TIME		0.00 hr
TOTAL DOWNTIME (MAX-ACTUAL)		1.02 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		64.2%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	1,601
NONPROCESS RECORDS (Test, calibration, etc)	23

20-SEC PROCESS RECORDS	1,156
TOTAL SORT	4 MD>0 & MND=0
NO SORT	848 AD=0 & MD=0 & MND>0
SOME SORT	304 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	0
AD=0 & MD	0
AD<0 & MD	0

JA SOIL CLEANUP PLANT LOG SUMMARY

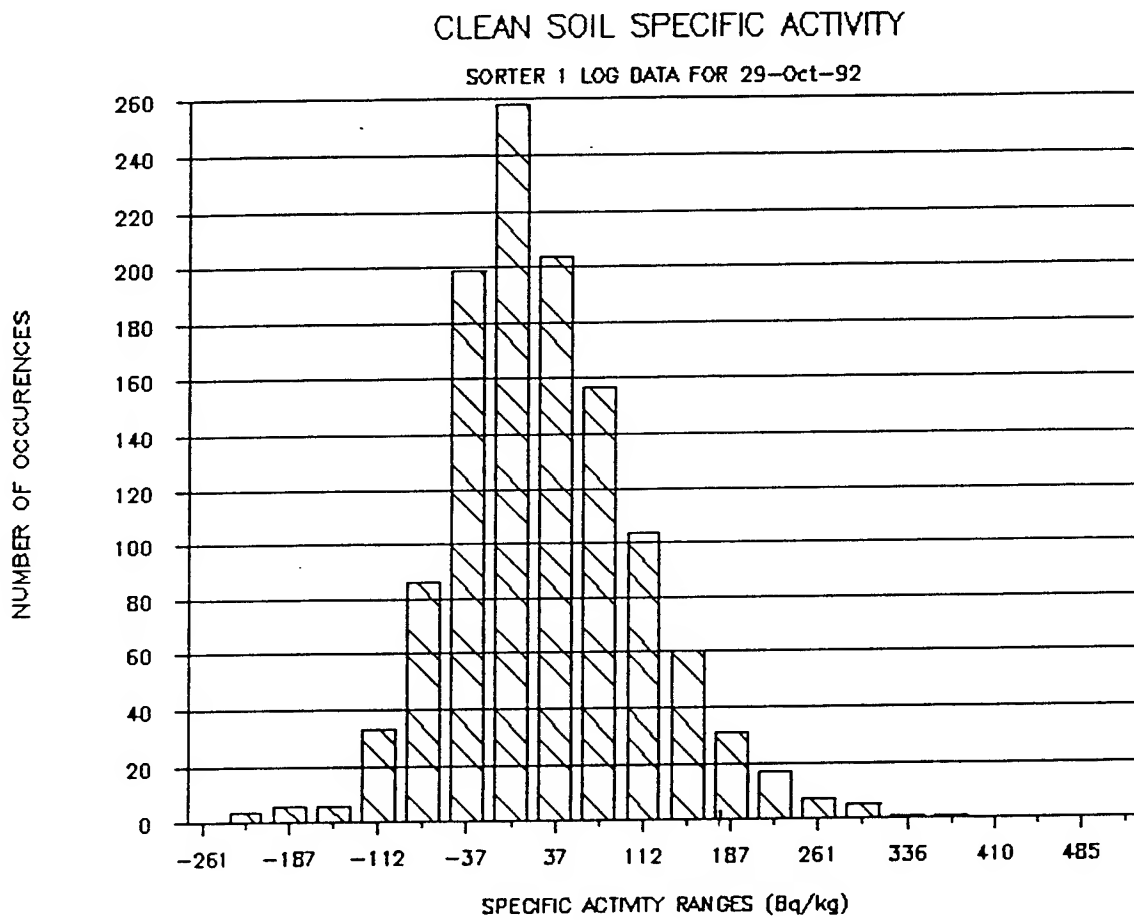
2-SEC COUNT PERIODS 11,560
 2-SEC RECORDS WITH SORTS 445 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	107	78.7%
3 DETECTORS	25	18.4%
4 DETECTORS	4	2.9%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	136	

NET 2-SEC RECORDS WITH SORTS 309
 2-SEC PERIODS WITH NO SORTS 11,251
 AVG TIME BETWEEN 2-SEC SORTS 74.8 sec

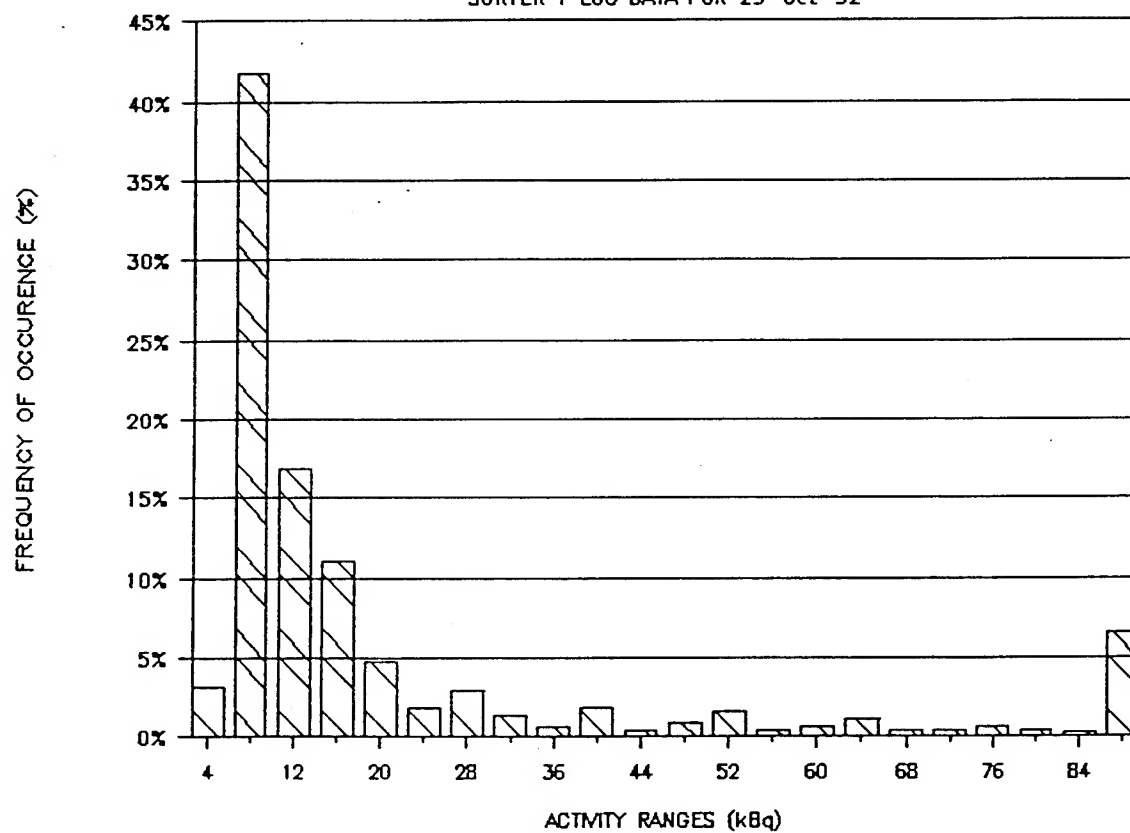
1-GATE SORTS	229	ACT_MD	NUMBER	SPEC_A	ACT_P	SORT	FREQX	ACT_P
DETECTO	SORTS	FREQX	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	5	2.2%	-14000	0	-261	4000	14	3.1%
2	21	9.2%	-12000	4	-224	8000	186	41.8%
3	44	19.2%	-10000	6	-187	12000	75	16.9%
4	36	15.7%	-8000	6	-149	16000	49	11.0%
5	50	21.8%	-6000	33	-112	20000	21	4.7%
6	32	14.0%	-4000	86	-75	24000	8	1.8%
7	26	11.4%	-2000	199	-37	28000	13	2.9%
8	15	6.6%	0	258	0	32000	6	1.3%
TOTAL	229		2000	204	37	36000	3	0.7%
			4000	157	75	40000	8	1.8%
2-GATE SORTS	216	6000	104	112	44000	2	0.4%	44
DETECTO	SORTS	FREQX	8000	60	149	48000	4	0.9%
8			10000	31	187	52000	7	1.6%
9	9	4.2%	12000	17	224	56000	2	0.4%
10	38	17.6%	14000	7	261	60000	3	0.7%
11	46	21.3%	16000	5	299	64000	5	1.1%
12	40	18.5%	18000	1	336	68000	2	0.4%
13	40	18.5%	20000	1	373	72000	2	0.4%
14	26	12.0%	22000	0	410	76000	3	0.7%
15	17	7.9%	24000	0	448	80000	2	0.4%
TOTAL	216		26000	0	485	84000	1	0.2%
			>28000	0	0	>84000	29	6.5%
			TOTAL	1179		TOTAL	445	
HPE	435		GATE1	445				
MPE	244		GATE2	216				
DISE	307							

REC CODE EXPLANATION



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 29-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 29-Oct-92

AVERAGE BACKGROUND COUNT RATE 0.80 ± 0.01 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.63 tons	49.0 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	44.9 kg

WEIGHT RECOVERY OR VOLUME RECOVERY			98.7%
EQUIVALENT SOIL-IN-GROUND	0.50 yd ³	38.8 yd ³	39.3 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	5,158 kBq
MAXIMUM/SORT	408 kBq
MINIMUM/SORT	2.8 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	2,322 kBq	2,211 kBq
MAXIMUM/SORT	246 kBq	18 kBq
MINIMUM/SORT	0 Bq	-14 kBq
SPECIFIC ACTIVITY	3,713 Bq/kg	45 Bq/kg

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	10:35 AM	
PLANT STARTUP TIME		3.59 hr
PROCESSING END	04:46 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.74 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		6.18 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		5.14 hr
TOTAL SYSTEM PAUSE TIME		0.00 hr
TOTAL DOWNTIME (MAX-ACTUAL)		1.04 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		51.4%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	1,202
NONPROCESS RECORDS (Test, calibration, etc)	34

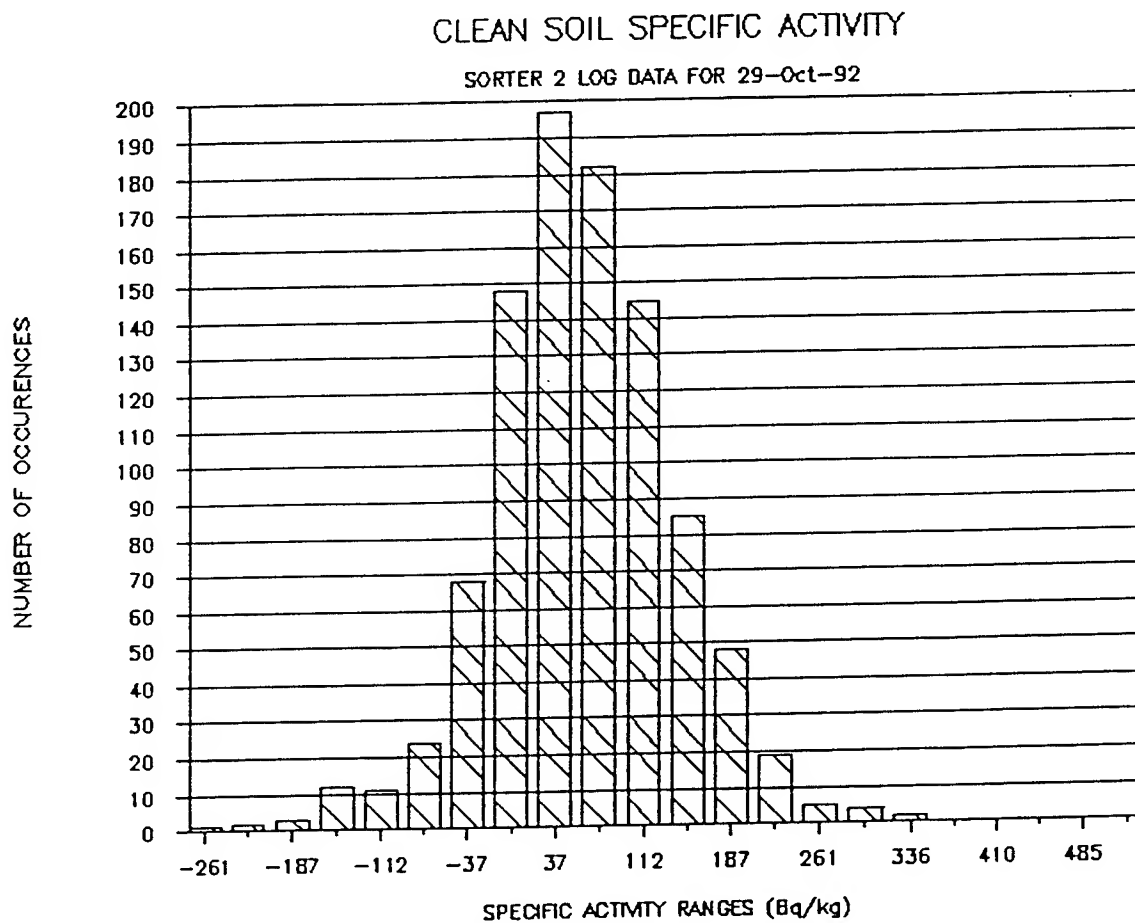
20-SEC PROCESS RECORDS	926
TOTAL SORT	5 MD>0 & MND=0
NO SORT	651 AD=0 & MD=0 & MND>0
SOME SORT	270 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	1
AD=0 & MD	0
AD<0 & MD	0

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 9,260
 2-SEC RECORDS WITH SORTS 276 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 60 77.9%
 3 DETECTORS 14 18.2%
 4 DETECTORS 3 3.9%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 77
 NET 2-SEC RECORDS WITH SORTS 199
 2-SEC PERIODS WITH NO SORTS 9,061
 AVG TIME BETWEEN 2-SEC SORTS 93.1 sec

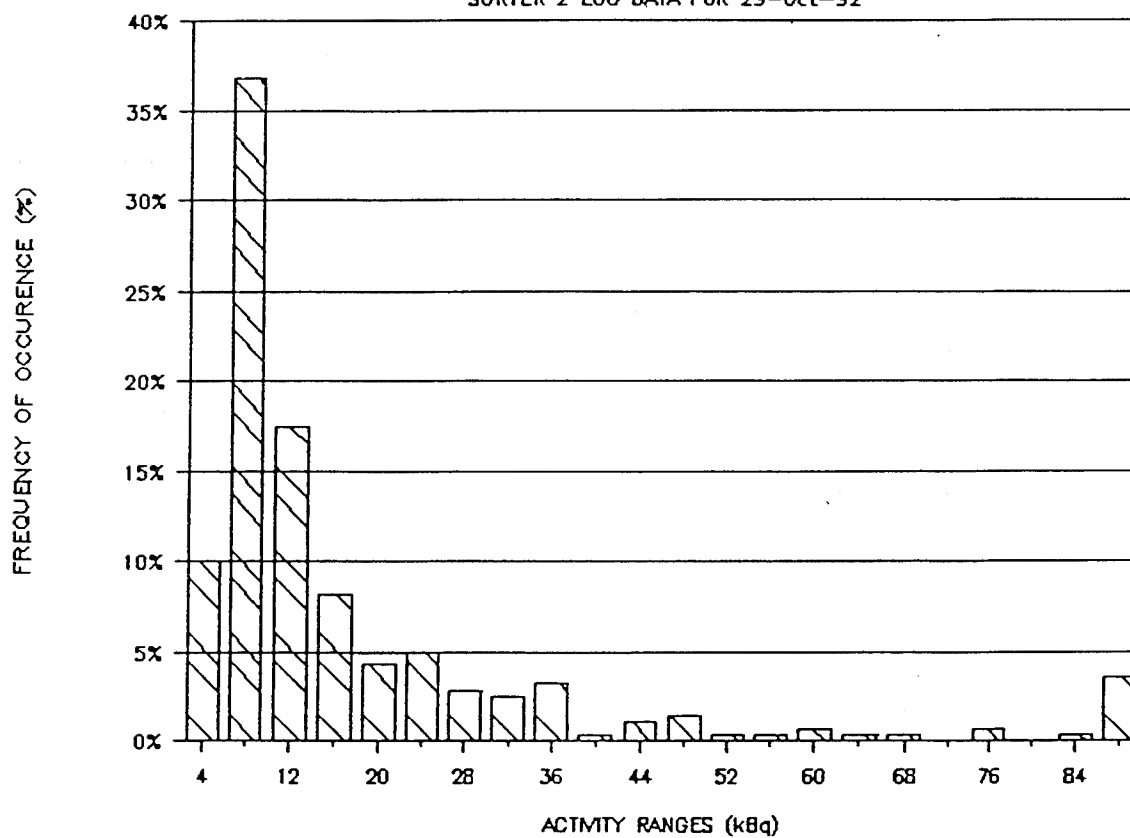
1-GATE SORTS		148	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%		ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	6	4.0%	-14000	1	-261	4000	28	10.0%	4
2	22	14.6%	-12000	2	-224	8000	103	36.8%	8
3	26	17.2%	-10000	3	-187	12000	49	17.5%	12
4	24	15.9%	-8000	12	-149	16000	23	8.2%	16
5	26	17.2%	-6000	11	-112	20000	12	4.3%	20
6	25	16.6%	-4000	24	-75	24000	14	5.0%	24
7	19	12.6%	-2000	68	-37	28000	8	2.9%	28
8	3	2.0%	0	148	0	32000	7	2.5%	32
TOTAL	151		2000	197	37	36000	9	3.2%	36
			4000	182	75	40000	1	0.4%	40
			6000	145	112	44000	3	1.1%	44
2-GATE SORTS		128	8000	85	149	48000	4	1.4%	48
DETECTO	SORTS	FREQ%	10000	48	187	52000	1	0.4%	52
8			12000	19	224	56000	1	0.4%	56
9	11	8.5%	14000	5	261	60000	2	0.7%	60
10	20	15.5%	16000	4	299	64000	1	0.4%	64
11	27	20.9%	18000	2	336	68000	1	0.4%	68
12	19	14.7%	20000	0	373	72000	0	0.0%	72
13	22	17.1%	22000	0	410	76000	2	0.7%	76
14	20	15.5%	24000	0	448	80000	0	0.0%	80
15	10	7.8%	26000	0	485	84000	1	0.4%	84
TOTAL	129		>28000	0	0	>84000	10	3.6%	>84
			TOTAL	956		TOTAL	280		
HPE		270	GATE1		276				
MPE		282	GATE2		128				
DISE		380							

REC CODE EXPLANATION



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 29-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 28-Oct-92

AVERAGE BACKGROUND COUNT RATE	0.78 ± 0.04 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		0.93 tons	77.5 tons
MAXIMUM/SORT		6.7 kg	53.6 kg
MINIMUM/SORT		0.7 kg	46.9 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			98.8%
EQUIVALENT SOIL-IN-GROUND	0.74 yd ³	61.4 yd ³	62.1 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	21,254 kBq		
MAXIMUM/SORT	2,188 kBq		
MINIMUM/SORT	3.1 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	7,198 kBq	3,712 kBq	
MAXIMUM/SORT	1236 kBq	15 kBq	
MINIMUM/SORT	0 Bq	-12 kBq	
SPECIFIC ACTIVITY	7,736 Bq/kg	48 Bq/kg	
WORK DAY			
WORK DAY START	07:00 AM		
PROCESSING START	07:47 AM		
PLANT STARTUP TIME		0.79 hr	
PROCESSING END	05:00 PM		
WORK DAY END	05:30 PM		
PLANT SHUTDOWN TIME		0.51 hr	
LUNCH PERIOD		0.5 hr	
WORK HOURS		10.0 hr	
MAX PROCESS HOURS (END-START)		9.21 hr	
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		8.13 hr	
TOTAL SYSTEM PAUSE TIME		0.00 hr	
TOTAL DOWNTIME (MAX-ACTUAL)		1.08 hr	
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		81.2%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,392		
NONPROCESS RECORDS (Test, calibration, etc)	16		
20-SEC PROCESS RECORDS	1,463		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	852 AD=0 & MD=0 & MND>0		
SOME SORT	611 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	2		
AD=0 & MD	0		
AD<0 & MD	0		

JA SOIL CLEANUP PLANT LOG SUMMARY

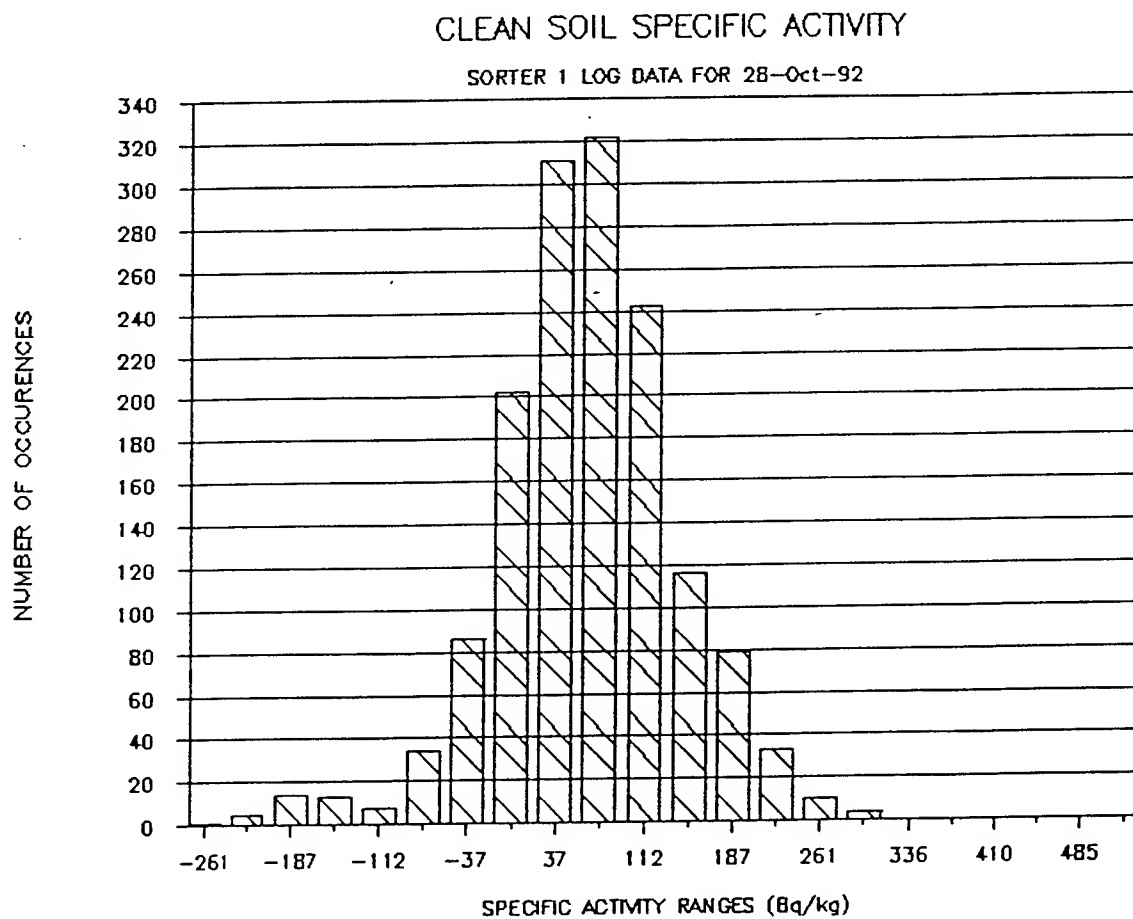
2-SEC COUNT PERIODS 14,630
 2-SEC RECORDS WITH SORTS 929 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 209 82.3%
 3 DETECTORS 37 14.6%
 4 DETECTORS 6 2.4%
 5 DETECTORS 2 0.8%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 254

NET 2-SEC RECORDS WITH SORTS 675
 2-SEC PERIODS WITH NO SORTS 13,955
 AVG TIME BETWEEN 2-SEC SORTS 43.3 sec

1-GATE SORTS	470	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	21	4.5%	-14000	1	-261	4000	32	3.4%
2	50	10.6%	-12000	5	-224	8000	404	43.5%
3	78	16.6%	-10000	14	-187	12000	148	15.9%
4	79	16.8%	-8000	13	-149	16000	91	9.8%
5	88	18.7%	-6000	7	-112	20000	58	6.2%
6	74	15.7%	-4000	34	-75	24000	38	4.1%
7	57	12.1%	-2000	86	-37	28000	22	2.4%
8	23	4.9%	0	202	0	32000	20	2.2%
TOTAL	470		2000	311	37	36000	5	0.5%
			4000	322	75	40000	15	1.6%
2-GATE SORTS	459	6000	243	112	44000	13	1.4%	44
DETECTO	SORTS	FREQ%	8000	116	149	48000	12	1.3%
8			10000	79	187	52000	1	0.1%
9	32	7.0%	12000	33	224	56000	10	1.1%
10	66	14.4%	14000	10	261	60000	5	0.5%
11	83	18.1%	16000	4	299	64000	1	0.1%
12	89	19.4%	18000	0	336	68000	2	0.2%
13	81	17.6%	20000	0	373	72000	6	0.6%
14	63	13.7%	22000	0	410	76000	3	0.3%
15	45	9.8%	24000	0	448	80000	6	0.6%
TOTAL	459		26000	0	485	84000	1	0.1%
			>28000	0	0	>84000	36	3.9%
			TOTAL	1480		TOTAL	929	

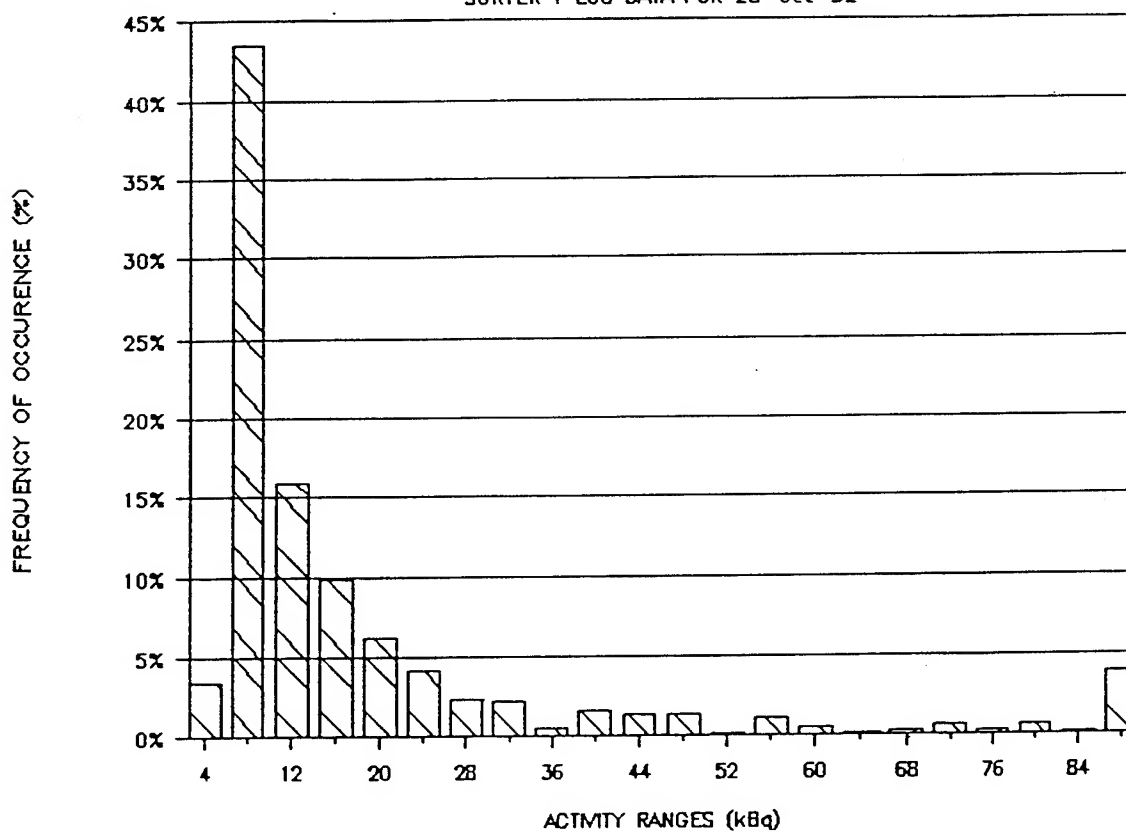
HPE 913 GATE1 929
 MPE 477 GATE2 459
 DISE 0

REC CODE EXPLANATION



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 28-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 28-Oct-92

AVERAGE BACKGROUND COUNT RATE	0.79 ± 0.03 c/sec	
SORTER SOIL DENSITY	1.15 tons/m ³	
GROUND SOIL DENSITY	1.65 tons/m ³	
	CONTAMINATED	CLEAN
MASS TOTAL	0.93 tons	76.6 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	46.9 kg
WEIGHT RECOVERY OR VOLUME RECOVERY		98.8%
EQUIVALENT SOIL-IN-GROUND	0.74 yd ³	60.7 yd ³ 61.5 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)		
TOTAL	13,573 kBq	
MAXIMUM/SORT	362 kBq	
MINIMUM/SORT	2.8 kBq	
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	5,732 kBq	6,136 kBq
MAXIMUM/SORT	240 kBq	17 kBq
MINIMUM/SORT	0 Bq	-10 kBq
SPECIFIC ACTIVITY	6,143 Bq/kg	80 Bq/kg
WORK DAY		
WORK DAY START	07:00 AM	
PROCESSING START	07:47 AM	
PLANT STARTUP TIME		0.79 hr
PROCESSING END	04:54 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.60 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		9.12 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		8.04 hr
TOTAL SYSTEM PAUSE TIME		0.02 hr
TOTAL DOWNTIME (MAX-ACTUAL)		1.08 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		80.3%
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,223	
NONPROCESS RECORDS (Test, calibration, etc)	66	
20-SEC PROCESS RECORDS	1,447	
TOTAL SORT	1 MD>0 & MND=0	
NO SORT	815 AD=0 & MD=0 & MND>0	
SOME SORT	631 AD>0&0<MD<MNDmax&MND<MNDmax	
UNEXPLAINED RECORDS	0	
0<AD<1kBq & MD>0	1	
AD=0 & MD	0	
AD<0 & MD	0	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 14,470
 2-SEC RECORDS WITH SORTS 776 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 205 83.7%
 3 DETECTORS 31 12.7%
 4 DETECTORS 8 3.3%
 5 DETECTORS 1 0.4%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 245

NET 2-SEC RECORDS WITH SORTS 531
 2-SEC PERIODS WITH NO SORTS 13,939
 AVG TIME BETWEEN 2-SEC SORTS 54.5 sec

1-GATE SORTS	402	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(8q)	(#)	(8q/kg)	(8q)	(#)	(kBq)
1	11	2.5%	-14000	0	-261	4000	44	5.4%
2	69	15.9%	-12000	0	-224	8000	303	37.4%
3	63	14.5%	-10000	2	-187	12000	146	18.0%
4	84	19.4%	-8000	7	-149	16000	77	9.5%
5	85	19.6%	-6000	7	-112	20000	45	5.6%
6	72	16.6%	-4000	12	-75	24000	42	5.2%
7	39	9.0%	-2000	33	-37	28000	23	2.8%
8	10	2.3%	0	144	0	32000	22	2.7%
TOTAL	433		2000	228	37	36000	15	1.9%
			4000	310	75	40000	14	1.7%
2-GATE SORTS	374	6000	308	112	44000	11	1.4%	44
DETECTO	SORTS	FREQ%	8000	208	149	48000	6	0.7%
8			10000	123	187	52000	6	0.7%
9	22	5.8%	12000	53	224	56000	6	0.7%
10	50	13.3%	14000	35	261	60000	1	0.1%
11	79	21.0%	16000	7	299	64000	4	0.5%
12	92	24.4%	18000	2	336	68000	1	0.1%
13	67	17.8%	20000	0	373	72000	3	0.4%
14	52	13.8%	22000	0	410	76000	5	0.6%
15	15	4.0%	24000	0	448	80000	1	0.1%
TOTAL	377		26000	0	485	84000	2	0.2%
			>28000	0	0	>84000	33	4.1%
			TOTAL	1479		TOTAL	810	
HPE	741		GATE1	776				
MPE	575		GATE2	374				
DISE	76							

REC CODE EXPLANATION

JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 27-Oct-92

AVERAGE BACKGROUND COUNT RATE	0.79 ± 0.03 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		0.64 tons	43.0 tons
MAXIMUM/SORT		51.7 kg	53.6 kg
MINIMUM/SORT		0.7 kg	48.2 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			98.5%
EQUIVALENT SOIL-IN-GROUND	0.51 yd ³	34.1 yd ³	34.6 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	10,483 kBq		
MAXIMUM/SORT	2,071 kBq		
MINIMUM/SORT	2.4 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	4,122 kBq	3,117 kBq	
MAXIMUM/SORT	1369 kBq	15 kBq	
MINIMUM/SORT	0 Bq	-14 kBq	
SPECIFIC ACTIVITY	6,463 Bq/kg	73 Bq/kg	
WORK DAY			
WORK DAY START	07:00 AM		
PROCESSING START	09:35 AM		
PLANT STARTUP TIME		2.59 hr	
PROCESSING END	04:50 PM		
WORK DAY END	05:30 PM		
PLANT SHUTDOWN TIME		0.67 hr	
LUNCH PERIOD		0.5 hr	
WORK HOURS		10.0 hr	
MAX PROCESS HOURS (END-START)		7.25 hr	
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		4.52 hr	
TOTAL SYSTEM PAUSE TIME		0.35 hr	
TOTAL DOWNTIME (MAX-ACTUAL)		2.73 hr	
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		45.2%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	1,185		
NONPROCESS RECORDS (Test, calibration, etc)	22		
20-SEC PROCESS RECORDS	814		
TOTAL SORT	4 MD>0 & MND=0		
NO SORT	486 AD=0 & MD=0 & MND>0		
SOME SORT	328 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	(4)		
0<AD<1kBq & MD>0	1		
AD=0 & MD	0		
AD<0 & MD	0		

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 8,140
 2-SEC RECORDS WITH SORTS 371 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	85	75.2%
3 DETECTORS	20	17.7%
4 DETECTORS	5	4.4%
5 DETECTORS	2	1.8%
6 DETECTORS	1	0.9%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	113	

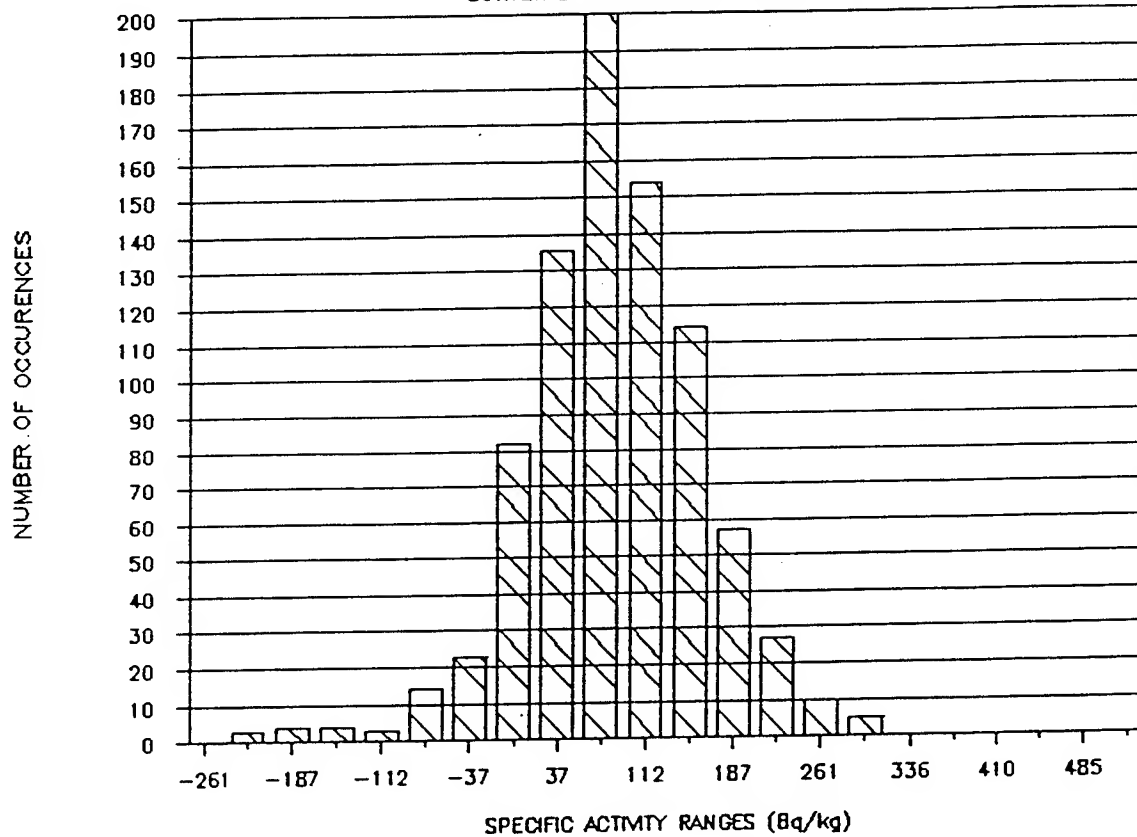
NET 2-SEC RECORDS WITH SORTS 258
 2-SEC PERIODS WITH NO SORTS 7,882
 AVG TIME BETWEEN 2-SEC SORTS 63.1 sec

1-GATE SORTS	187	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P	
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)	
1	6	3.2%	-14000	0	-261	4000	28	7.5%	4
2	20	10.7%	-12000	3	-224	8000	141	38.0%	8
3	39	20.9%	-10000	4	-187	12000	75	20.2%	12
4	38	20.3%	-8000	4	-149	16000	34	9.2%	16
5	34	18.2%	-6000	3	-112	20000	21	5.7%	20
6	22	11.8%	-4000	14	-75	24000	7	1.9%	24
7	23	12.3%	-2000	23	-37	28000	7	1.9%	28
8	5	2.7%	0	82	0	32000	7	1.9%	32
TOTAL	187		2000	136	37	36000	8	2.2%	36
			4000	200	75	40000	2	0.5%	40
2-GATE SORTS	184		6000	154	112	44000	5	1.3%	44
DETECTO	SORTS	FREQ%	8000	114	149	48000	5	1.3%	48
8			10000	57	187	52000	1	0.3%	52
9	13	7.1%	12000	27	224	56000	3	0.8%	56
10	24	13.0%	14000	10	261	60000	5	1.3%	60
11	39	21.2%	16000	5	299	64000	2	0.5%	64
12	44	23.9%	18000	0	336	68000	0	0.0%	68
13	25	13.6%	20000	0	373	72000	3	0.8%	72
14	28	15.2%	22000	0	410	76000	0	0.0%	76
15	11	6.0%	24000	0	448	80000	1	0.3%	80
TOTAL	184		26000	0	485	84000	0	0.0%	84
			>28000	0	0	>84000	16	4.3%	>84
			TOTAL	836		TOTAL	371		
HPE	364		GATE1	371					
MPE	279		GATE2	184					
DISE	308								

REC CODE EXPLANATION

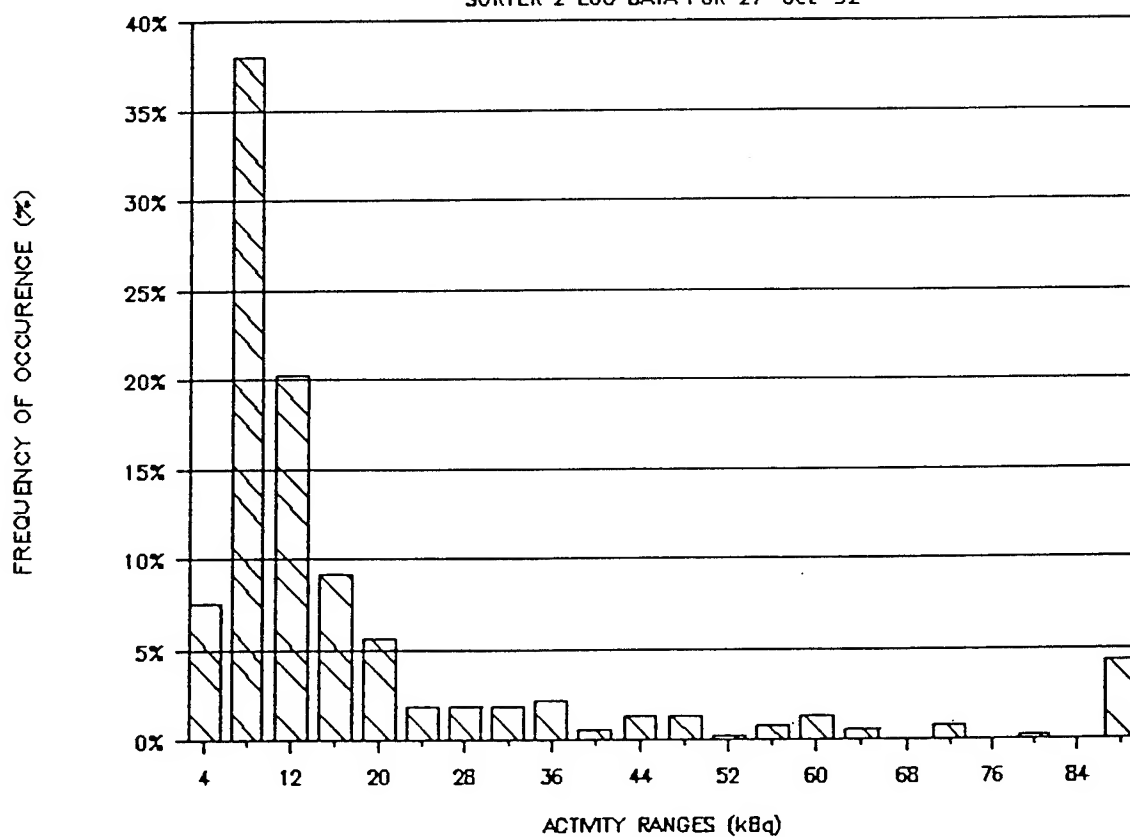
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 27-Oct-92



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 27-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 26-Oct-92

AVERAGE BACKGROUND COUNT RATE	0.79 ± 0.03 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		0.63 tons	66.6 tons
MAXIMUM/SORT		6.7 kg	53.6 kg
MINIMUM/SORT		0.7 kg	46.9 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			99.1%
EQUIVALENT SOIL-IN-GROUND	0.50 yd ³	52.8 yd ³	53.3 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	12,312 kBq		
MAXIMUM/SORT	569 kBq		
MINIMUM/SORT	2.6 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	4,332 kBq	(1,124)kBq	
MAXIMUM/SORT	345 kBq	13 kBq	
MINIMUM/SORT	0 Bq	-19 kBq	
SPECIFIC ACTIVITY	6,848 Bq/kg	(17)Bq/kg	
WORK DAY			
WORK DAY START	07:00 AM		
PROCESSING START	08:14 AM		
PLANT STARTUP TIME		1.25 hr	
PROCESSING END	04:57 PM		
WORK DAY END	05:30 PM		
PLANT SHUTDOWN TIME		0.54 hr	
LUNCH PERIOD		0.5 hr	
WORK HOURS		10.0 hr	
MAX PROCESS HOURS (END-START)		8.72 hr	
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		6.97 hr	
TOTAL SYSTEM PAUSE TIME		0.00 hr	
TOTAL DOWNTIME (MAX-ACTUAL)		1.75 hr	
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		69.7%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	1,870		
NONPROCESS RECORDS (Test, calibration, etc)	24		
20-SEC PROCESS RECORDS	1,255		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	798 AD=0 & MD=0 & MND>0		
SOME SORT	457 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	0		
AD=0 & MD	0		
AD<0 & MD	0		

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 12,550
 2-SEC RECORDS WITH SORTS 615 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

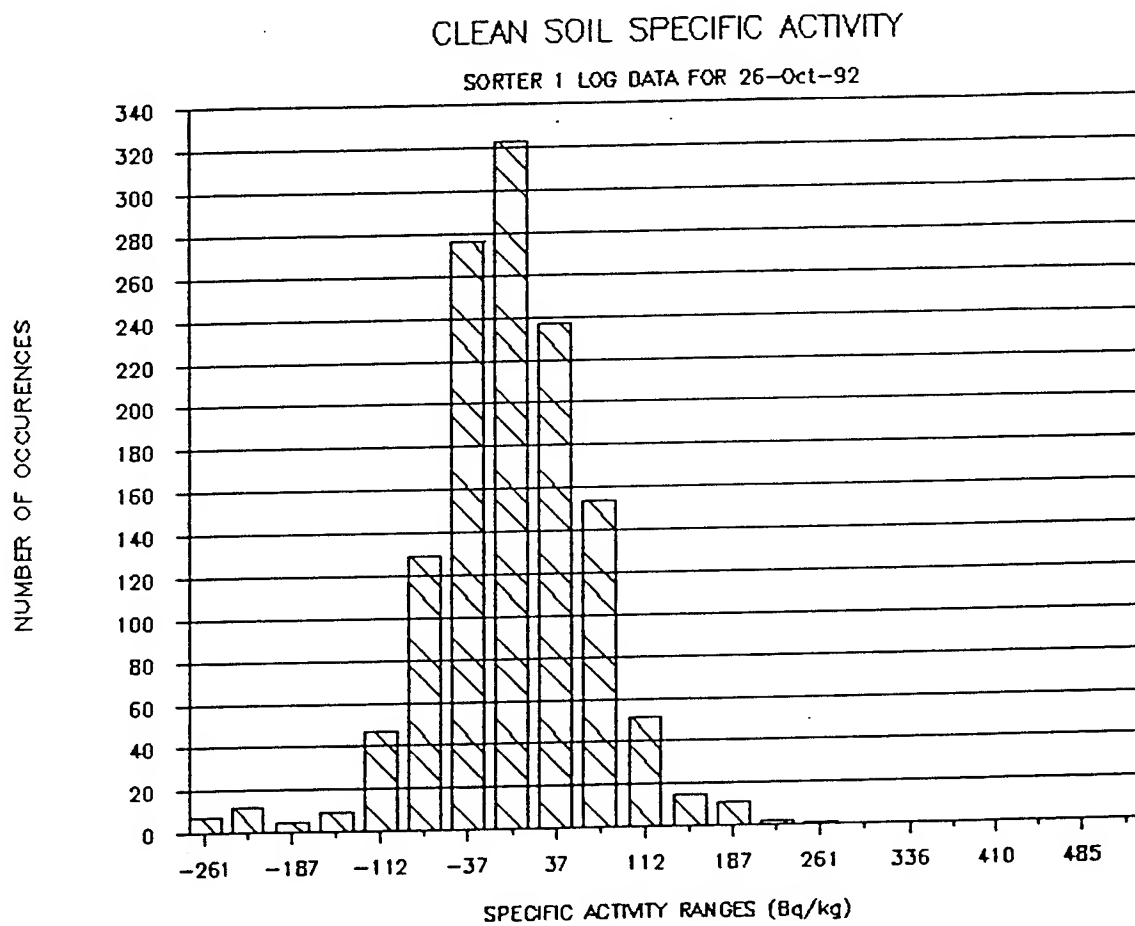
2 DETECTORS	145	81.9%
3 DETECTORS	25	14.1%
4 DETECTORS	7	4.0%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	177	

NET 2-SEC RECORDS WITH SORTS 438
 2-SEC PERIODS WITH NO SORTS 12,112
 AVG TIME BETWEEN 2-SEC SORTS 57.3 sec

1-GATE SORTS	318	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	17	5.3%	-14000	7	-261	4000	21	3.4%
2	28	8.8%	-12000	12	-224	8000	265	43.1%
3	46	14.5%	-10000	5	-187	12000	107	17.4%
4	68	21.4%	-8000	9	-149	16000	58	9.4%
5	70	22.0%	-6000	47	-112	20000	29	4.7%
6	48	15.1%	-4000	129	-75	24000	17	2.8%
7	29	9.1%	-2000	276	-37	28000	17	2.8%
8	12	3.8%	0	323	0	32000	13	2.1%
TOTAL	318		2000	237	37	36000	11	1.8%
			4000	154	75	40000	7	1.1%
			6000	51	112	44000	5	0.8%
2-GATE SORTS	297		8000	15	149	48000	5	0.8%
DETECTO	SORTS	FREQ%	10000	11	187	52000	1	0.2%
8			12000	2	224	56000	4	0.7%
9	29	9.8%	14000	1	261	60000	8	1.3%
10	34	11.4%	16000	0	299	64000	4	0.7%
11	51	17.2%	18000	0	336	68000	3	0.5%
12	68	22.9%	20000	0	373	72000	3	0.5%
13	60	20.2%	22000	0	410	76000	4	0.7%
14	30	10.1%	24000	0	448	80000	6	1.0%
15	25	8.4%	26000	0	485	84000	2	0.3%
TOTAL	297		>28000	0	0	>84000	25	4.1%
			TOTAL	1279		TOTAL	615	

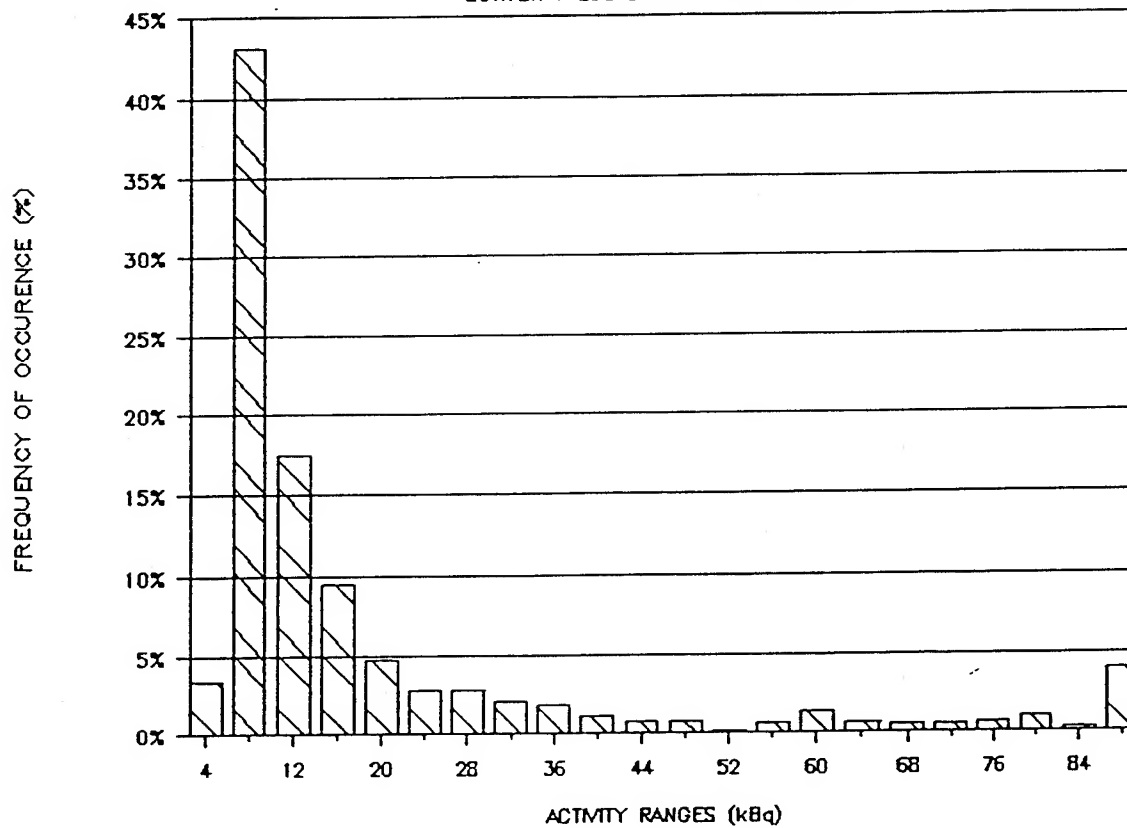
HPE	606	GATE1	615
MPE	338	GATE2	297
DISE	0		

REC CODE EXPLANATION



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 26-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 26-Oct-92

AVERAGE BACKGROUND COUNT RATE	0.79 ± 0.03 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		0.59 tons	67.0 tons
MAXIMUM/SORT		4.7 kg	53.6 kg
MINIMUM/SORT		0.7 kg	48.9 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			99.1%
EQUIVALENT SOIL-IN-GROUND	0.46 yd ³	53.1 yd ³	53.6 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	14,389 kBq		
MAXIMUM/SORT	2,291 kBq		
MINIMUM/SORT	2.8 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	5,605 kBq	3,188 kBq	
MAXIMUM/SORT	1652 kBq	15 kBq	
MINIMUM/SORT	0 Bq	-15 kBq	
SPECIFIC ACTIVITY	9,556 Bq/kg	48 Bq/kg	
WORK DAY			
WORK DAY START	07:00 AM		
PROCESSING START	08:15 AM		
PLANT STARTUP TIME		1.25 hr	
PROCESSING END	04:57 PM		
WORK DAY END	05:30 PM		
PLANT SHUTDOWN TIME		0.54 hr	
LUNCH PERIOD		0.5 hr	
WORK HOURS		10.0 hr	
MAX PROCESS HOURS (END-START)		8.71 hr	
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		7.01 hr	
TOTAL SYSTEM PAUSE TIME		0.00 hr	
TOTAL DOWNTIME (MAX-ACTUAL)		1.70 hr	
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		70.1%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	1,766		
NONPROCESS RECORDS (Test, calibration, etc)	15		
20-SEC PROCESS RECORDS	1,262		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	810 AD=0 & MD=0 & MND>0		
SOME SORT	452 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	1		
AD=0 & MD	0		
AD<0 & MD	0		

JA SOIL CLEANUP PLANT LOG SUMMARY

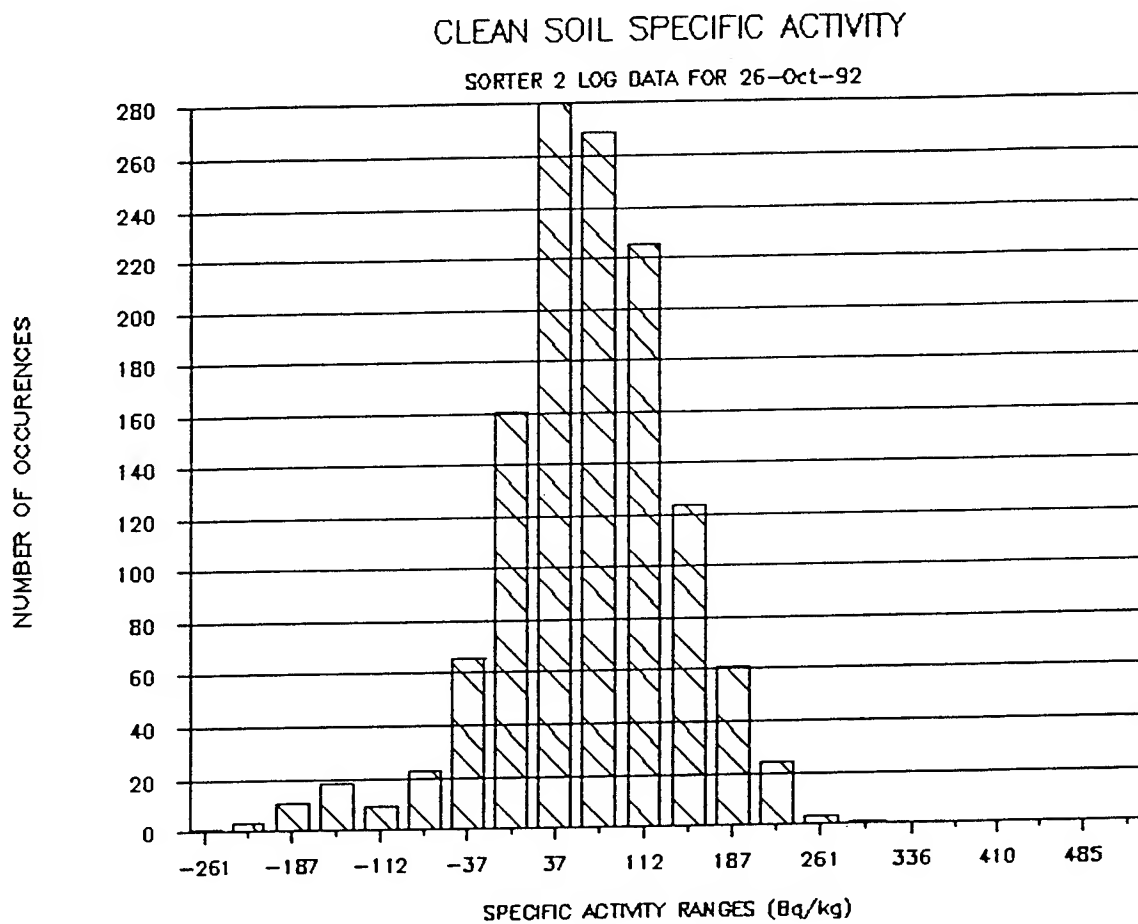
2-SEC COUNT PERIODS 12,620
 2-SEC RECORDS WITH SORTS 504 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	111	77.6%
3 DETECTORS	25	17.5%
4 DETECTORS	7	4.9%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	143	

NET 2-SEC RECORDS WITH SORTS 361
 2-SEC PERIODS WITH NO SORTS 12,259
 AVG TIME BETWEEN 2-SEC SORTS 69.9 sec

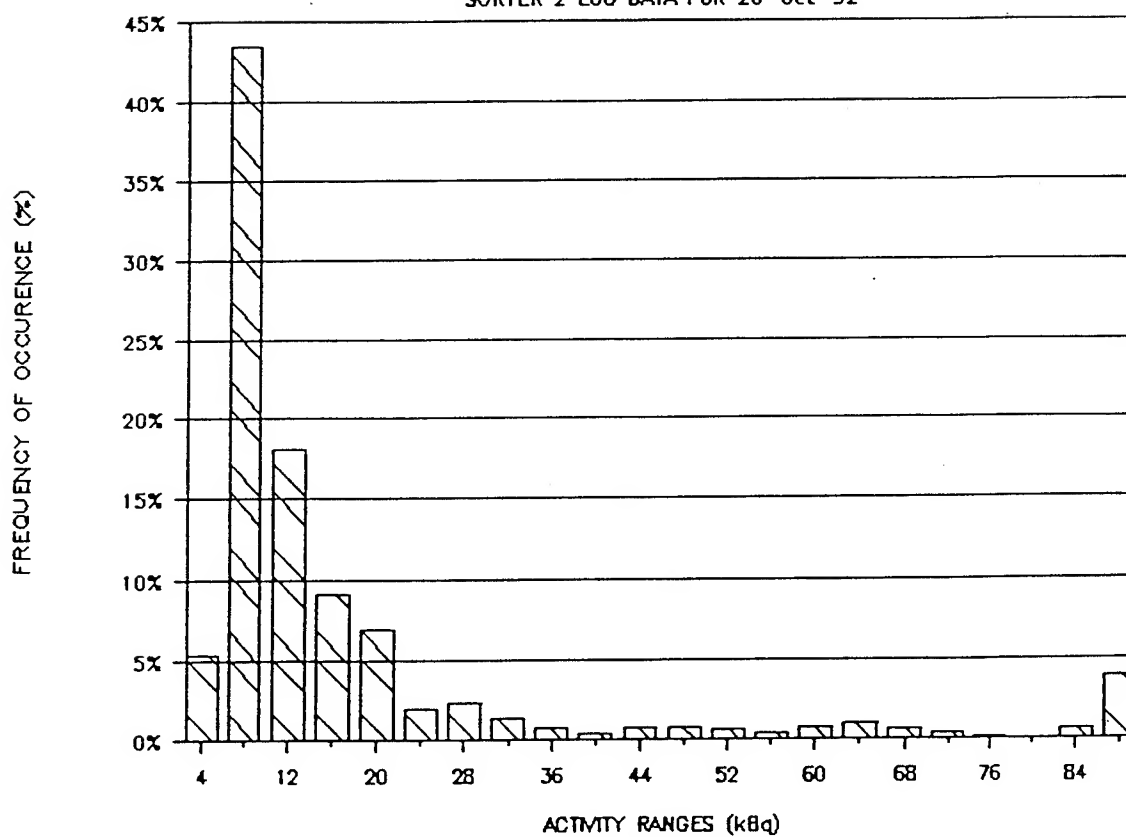
1-GATE SORTS	258	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P	
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)	
1	7	2.7%	-14000	1	-261	4000	27	5.4%	4
2	21	8.1%	-12000	3	-224	8000	219	43.5%	8
3	39	15.1%	-10000	11	-187	12000	91	18.1%	12
4	41	15.9%	-8000	18	-149	16000	46	9.1%	16
5	64	24.8%	-6000	9	-112	20000	35	6.9%	20
6	47	18.2%	-4000	23	-75	24000	10	2.0%	24
7	34	13.2%	-2000	66	-37	28000	12	2.4%	28
8	5	1.9%	0	161	0	32000	7	1.4%	32
TOTAL	258		2000	280	37	36000	4	0.8%	36
			4000	269	75	40000	2	0.4%	40
2-GATE SORTS	246		6000	225	112	44000	4	0.8%	44
DETECTO	SORTS	FREQ%	8000	124	149	48000	4	0.8%	48
8			10000	61	187	52000	3	0.6%	52
9	21	8.5%	12000	24	224	56000	2	0.4%	56
10	23	9.3%	14000	3	261	60000	4	0.8%	60
11	40	16.3%	16000	1	299	64000	5	1.0%	64
12	60	24.4%	18000	0	336	68000	3	0.6%	68
13	48	19.5%	20000	0	373	72000	2	0.4%	72
14	44	17.9%	22000	0	410	76000	1	0.2%	76
15	10	4.1%	24000	0	448	80000	0	0.0%	80
TOTAL	246		26000	0	485	84000	3	0.6%	84
			>28000	0	0	>84000	20	4.0%	>84
			TOTAL	1279		TOTAL	504		
HPE	499		GATE1	504					
MPE	376		GATE2	246					
DISE	0								

REC CODE EXPLANATION



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 26-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 24-Oct-92

AVERAGE BACKGROUND COUNT RATE

SORTER SOIL DENSITY

GROUND SOIL DENSITY

0.77 ± 0.05 c/sec
1.15 -ERR tons/m³ *Kgm 10/24/92*
1.65 tons/m³

	CONTAMINATED	CLEAN	
MASS TOTAL	0.58 tons	64.8 tons	
MAXIMUM/SORT	56.2 kg	53.6 kg	
MINIMUM/SORT	0.6 kg	47.4 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.1%
EQUIVALENT SOIL-IN-GROUND	0.46 yd ³	51.4 yd ³	51.8 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	8,402 kBq		
MAXIMUM/SORT	288 kBq		
MINIMUM/SORT	3.1 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	2,955 kBq	(1,343)kBq	
MAXIMUM/SORT	178 kBq	13 kBq	
MINIMUM/SORT	-20055 Bq	-16 kBq	
SPECIFIC ACTIVITY	5,134 Bq/kg	(21)Bq/kg	

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	08:05 AM	
PLANT STARTUP TIME		1.09 hr
PROCESSING END	04:42 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.80 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		8.61 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		6.84 hr
TOTAL SYSTEM PAUSE TIME		0.51 hr
TOTAL DOWNTIME (MAX-ACTUAL)		1.77 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		68.4%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 1,641
NONPROCESS RECORDS (Test, calibration, etc) 33

20-SEC PROCESS RECORDS

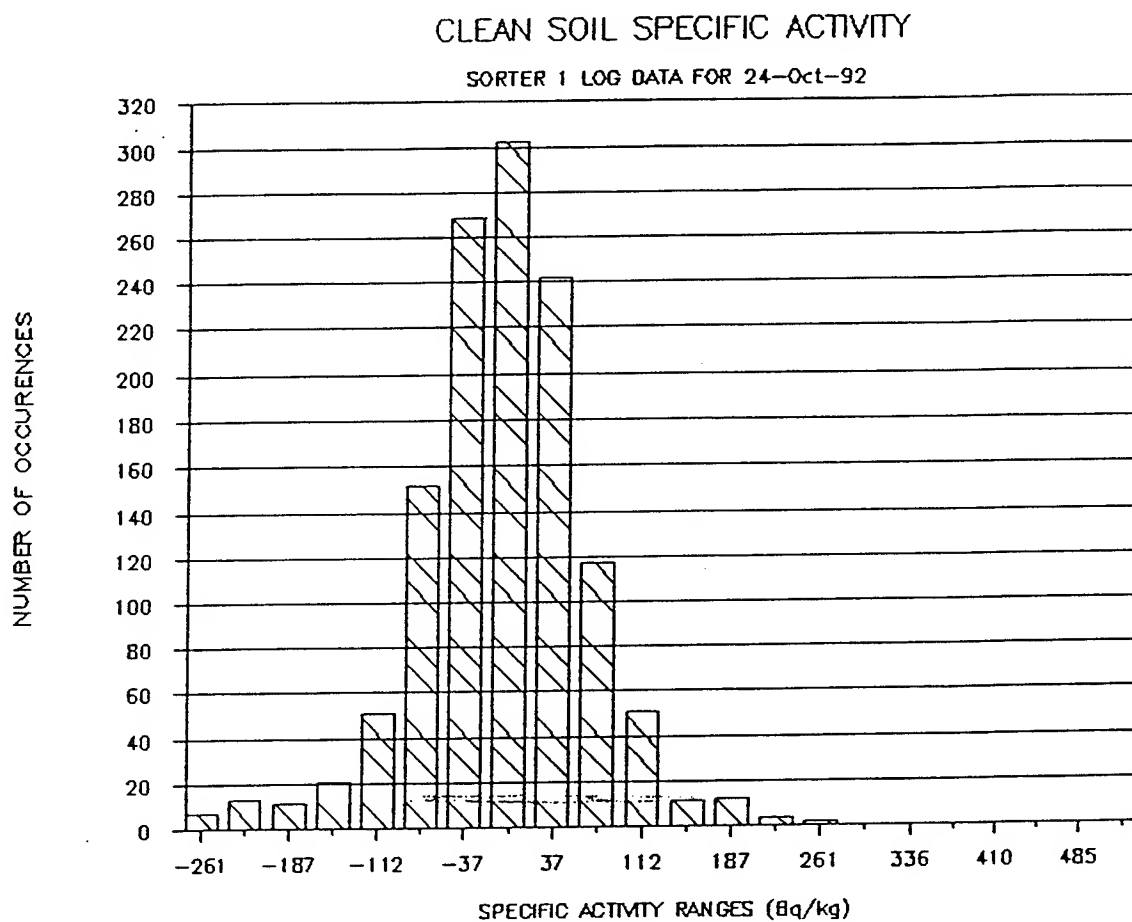
TOTAL SORT	1,232
NO SORT	2 MD>0 & MND=0
SOME SORT	862 AD=0 & MD=0 & MND>0
UNEXPLAINED RECORDS	368 AD>0&0<MD<MNDmax&MND<MNDmax
0<AD<1kBq & MD>0	0
AD=0 & MD	0
AD<0 & MD	2

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 12,320
 2-SEC RECORDS WITH SORTS 409 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 97 77.6%
 3 DETECTORS 21 16.8%
 4 DETECTORS 7 5.6%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 125
 NET 2-SEC RECORDS WITH SORTS 284
 2-SEC PERIODS WITH NO SORTS 12,036
 AVG TIME BETWEEN 2-SEC SORTS 86.8 sec

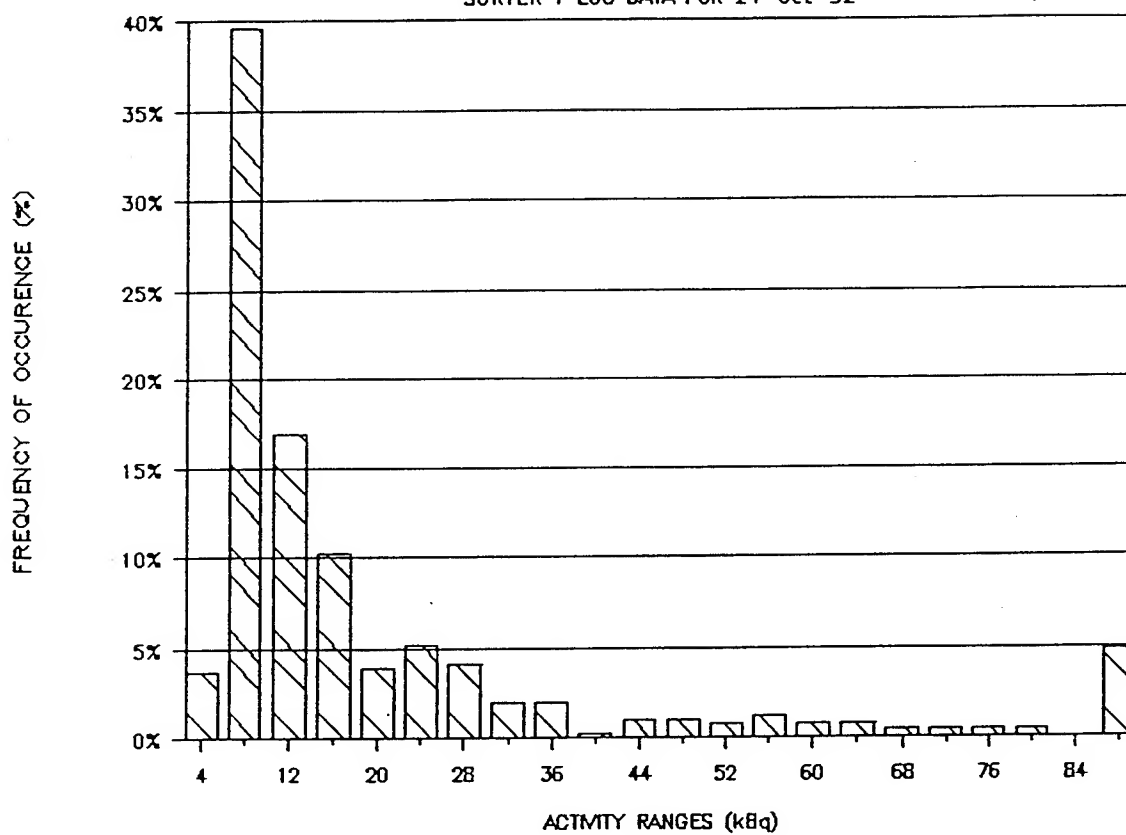
1-GATE SORTS		201	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	6	3.0%	-14000	7	-261	4000	15	3.7%	4
2	23	11.4%	-12000	13	-224	8000	162	39.6%	8
3	33	16.4%	-10000	11	-187	12000	69	16.9%	12
4	33	16.4%	-8000	21	-149	16000	42	10.3%	16
5	44	21.9%	-6000	51	-112	20000	16	3.9%	20
6	25	12.4%	-4000	152	-75	24000	21	5.1%	24
7	29	14.4%	-2000	269	-37	28000	17	4.2%	28
8	8	4.0%	0	302	0	32000	8	2.0%	32
TOTAL	201		2000	242	37	36000	8	2.0%	36
			4000	117	75	40000	1	0.2%	40
2-GATE SORTS		208	6000	51	112	44000	4	1.0%	44
DETECTO	SORTS	FREQ%	8000	11	149	48000	4	1.0%	48
8			10000	12	187	52000	3	0.7%	52
9	13	6.3%	12000	4	224	56000	5	1.2%	56
10	31	14.9%	14000	2	261	60000	3	0.7%	60
11	42	20.2%	16000	0	299	64000	3	0.7%	64
12	41	19.7%	18000	0	336	68000	2	0.5%	68
13	37	17.8%	20000	0	373	72000	2	0.5%	72
14	24	11.5%	22000	0	410	76000	2	0.5%	76
15	20	9.6%	24000	0	448	80000	2	0.5%	80
TOTAL	208		26000	0	485	84000	0	0.0%	84
			>28000	0	0	>84000	20	4.9%	>84
			TOTAL	1265		TOTAL	409		
HPE		401		GATE1	409				
MPE		300		GATE2	208				
DISE		166							

REC CODE EXPLANATION



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 24-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 24-Oct-92

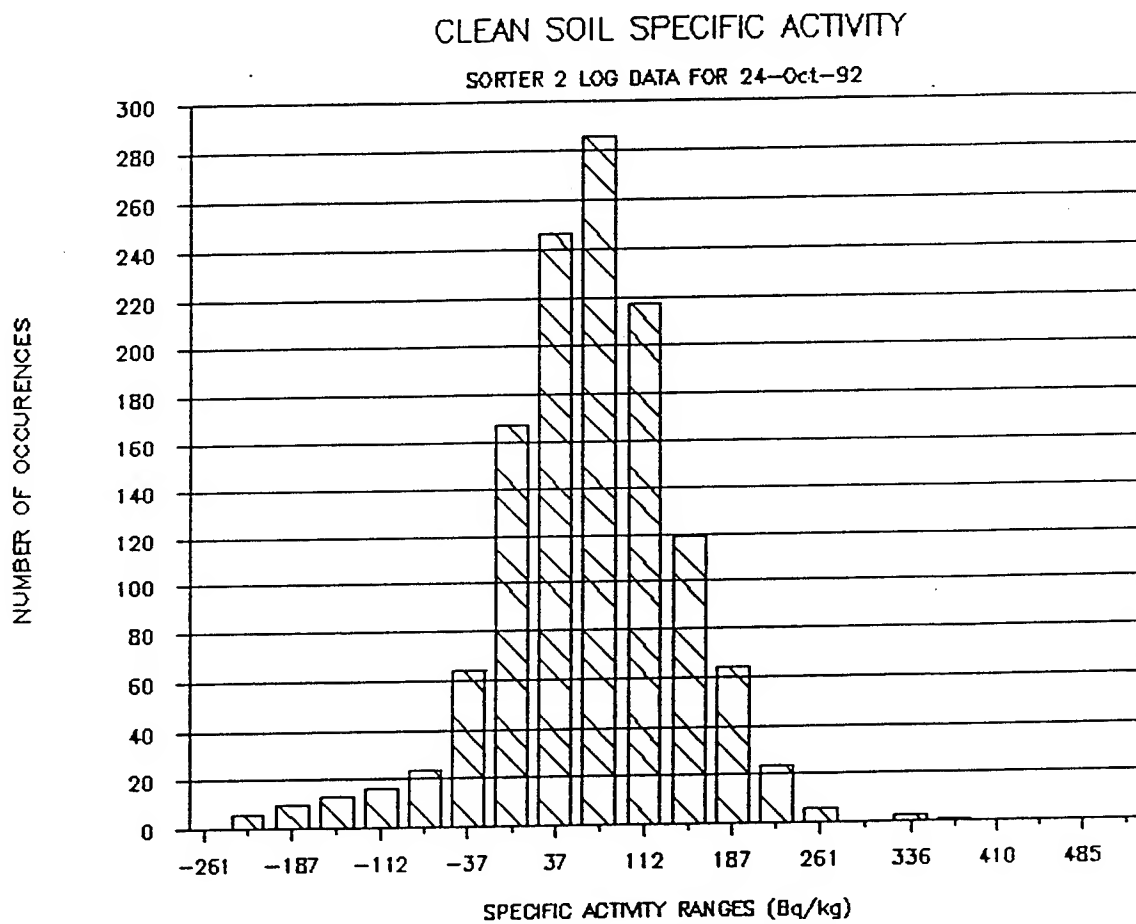
AVERAGE BACKGROUND COUNT RATE	0.79 ± 0.04 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	0.66 tons	64.4 tons	
MAXIMUM/SORT	53.6 kg	53.6 kg	
MINIMUM/SORT	0.6 kg	45.5 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.0%
EQUIVALENT SOIL-IN-GROUND	0.52 yd ³	51.1 yd ³	51.6 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	14,766 kBq		
MAXIMUM/SORT	4,197 kBq		
MINIMUM/SORT	2.8 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	5,509 kBq	3,438 kBq	
MAXIMUM/SORT	3051 kBq	18 kBq	
MINIMUM/SORT	-17105 Bq	-13 kBq	
SPECIFIC ACTIVITY	8,352 Bq/kg	53 Bq/kg	
WORK DAY			
WORK DAY START	07:00 AM		
PROCESSING START	08:05 AM		
PLANT STARTUP TIME		1.09 hr	
PROCESSING END	04:42 PM		
WORK DAY END	05:30 PM		
PLANT SHUTDOWN TIME		0.80 hr	
LUNCH PERIOD		0.5 hr	
WORK HOURS		10.0 hr	
MAX PROCESS HOURS (END-START)		8.62 hr	
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		6.81 hr	
TOTAL SYSTEM PAUSE TIME		0.51 hr	
TOTAL DOWNTIME (MAX-ACTUAL)		1.81 hr	
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		68.1%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	1,564		
NONPROCESS RECORDS (Test, calibration, etc)	40		
20-SEC PROCESS RECORDS	1,226		
TOTAL SORT	4 MD>0 & MND=0		
NO SORT	828 AD=0 & MD=0 & MND>0		
SOME SORT	394 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	1		
AD=0 & MD	0		
AD<0 & MD	2		

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 12,260
 2-SEC RECORDS WITH SORTS 338 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 74 78.7%
 3 DETECTORS 16 17.0%
 4 DETECTORS 4 4.3%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 94
 NET 2-SEC RECORDS WITH SORTS 244
 2-SEC PERIODS WITH NO SORTS 12,016
 AVG TIME BETWEEN 2-SEC SORTS 100.5 sec

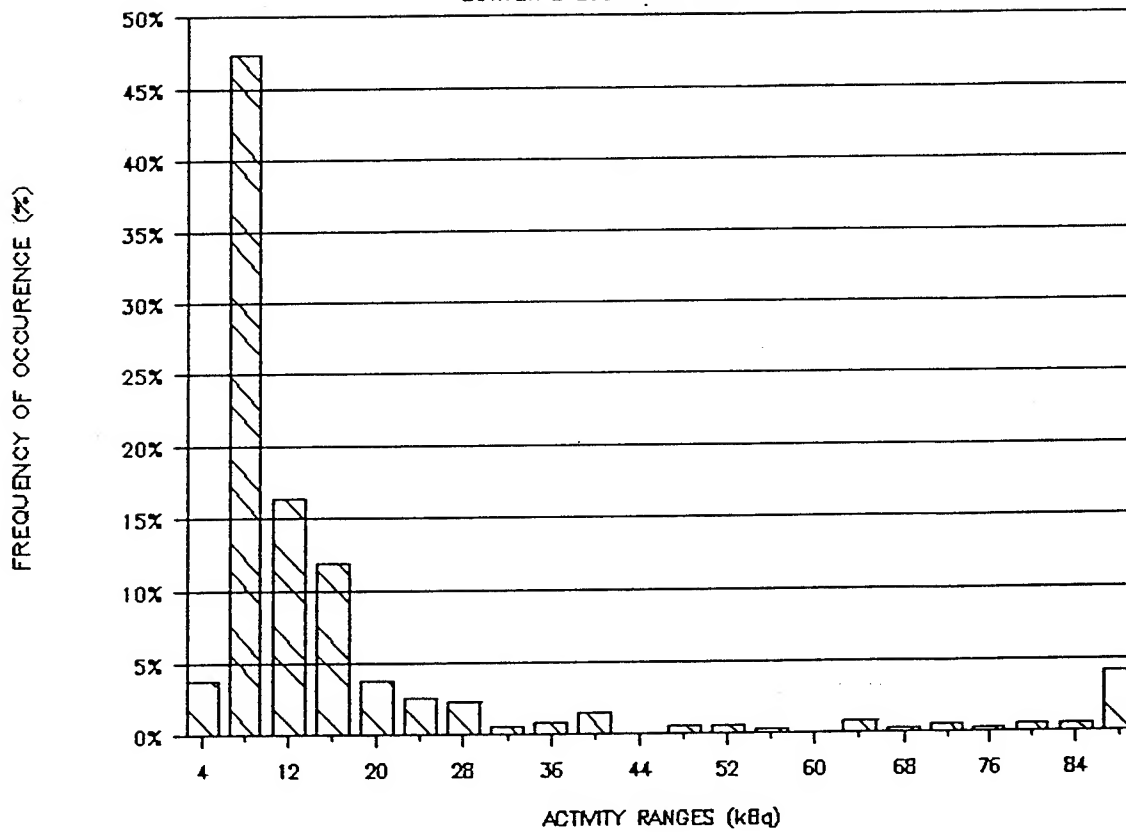
1-GATE SORTS	175	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	7	4.0%	-14000	0	-261	4000	13	3.8%
2	12	6.9%	-12000	6	-224	8000	160	47.3%
3	30	17.1%	-10000	10	-187	12000	55	16.3%
4	37	21.1%	-8000	13	-149	16000	40	11.8%
5	37	21.1%	-6000	16	-112	20000	13	3.8%
6	24	13.7%	-4000	24	-75	24000	9	2.7%
7	17	9.7%	-2000	64	-37	28000	8	2.4%
8	11	6.3%	0	167	0	32000	2	0.6%
TOTAL	175		2000	246	37	36000	3	0.9%
			4000	286	75	40000	5	1.5%
2-GATE SORTS	163	6000	217	112	44000	0	0.0%	44
DETECTO	SORTS	FREQ%	8000	119	149	48000	2	0.6%
8			10000	64	187	52000	2	0.6%
9	9	5.5%	12000	24	224	56000	1	0.3%
10	19	11.7%	14000	6	261	60000	0	0.0%
11	31	19.0%	16000	0	299	64000	3	0.9%
12	40	24.5%	18000	3	336	68000	1	0.3%
13	32	19.6%	20000	1	373	72000	2	0.6%
14	24	14.7%	22000	0	410	76000	1	0.3%
15	8	4.9%	24000	0	448	80000	2	0.6%
TOTAL	163		26000	0	485	84000	2	0.6%
			>28000	0	0	>84000	14	4.1%
			TOTAL	1266		TOTAL	338	
MPE	341		GATE1	338				
MPE	342		GATE2	163				
DISE	312							

REC CODE EXPLANATION



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 24-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 23-Oct-92

AVERAGE BACKGROUND COUNT RATE	0.79 ± 0.02 c/sec		
SORTER SOIL DENSITY	1.1 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	0.60 tons	41.1 tons	
MAXIMUM/SORT	53.8 kg	51.2 kg	
MINIMUM/SORT	0.6 kg	46.1 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			98.6%
EQUIVALENT SOIL-IN-GROUND	0.47 yd ³	32.6 yd ³	33.1 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	6,248 kBq		
MAXIMUM/SORT	366 kBq		
MINIMUM/SORT	2.8 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	2,326 kBq	(1,609)kBq	
MAXIMUM/SORT	220 kBq	10 kBq	
MINIMUM/SORT	0 Bq	-16 kBq	
SPECIFIC ACTIVITY	3,905 Bq/kg	(39)Bq/kg	

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	12:44 PM	
PLANT STARTUP TIME		5.74 hr
PROCESSING END	05:16 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.24 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		4.53 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		4.52 hr
TOTAL SYSTEM PAUSE TIME		0.04 hr
TOTAL DOWNTIME (MAX-ACTUAL)		0.01 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		45.2%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	1,119
NONPROCESS RECORDS (Test, calibration, etc)	15

20-SEC PROCESS RECORDS	814
TOTAL SORT	4 MD>0 & MND=0
NO SORT	494 AD=0 & MD=0 & MND>0
SOME SORT	316 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	1
AD=0 & MD	0
AD<0 & MD	0

JA SOIL CLEANUP PLANT LOG SUMMARY

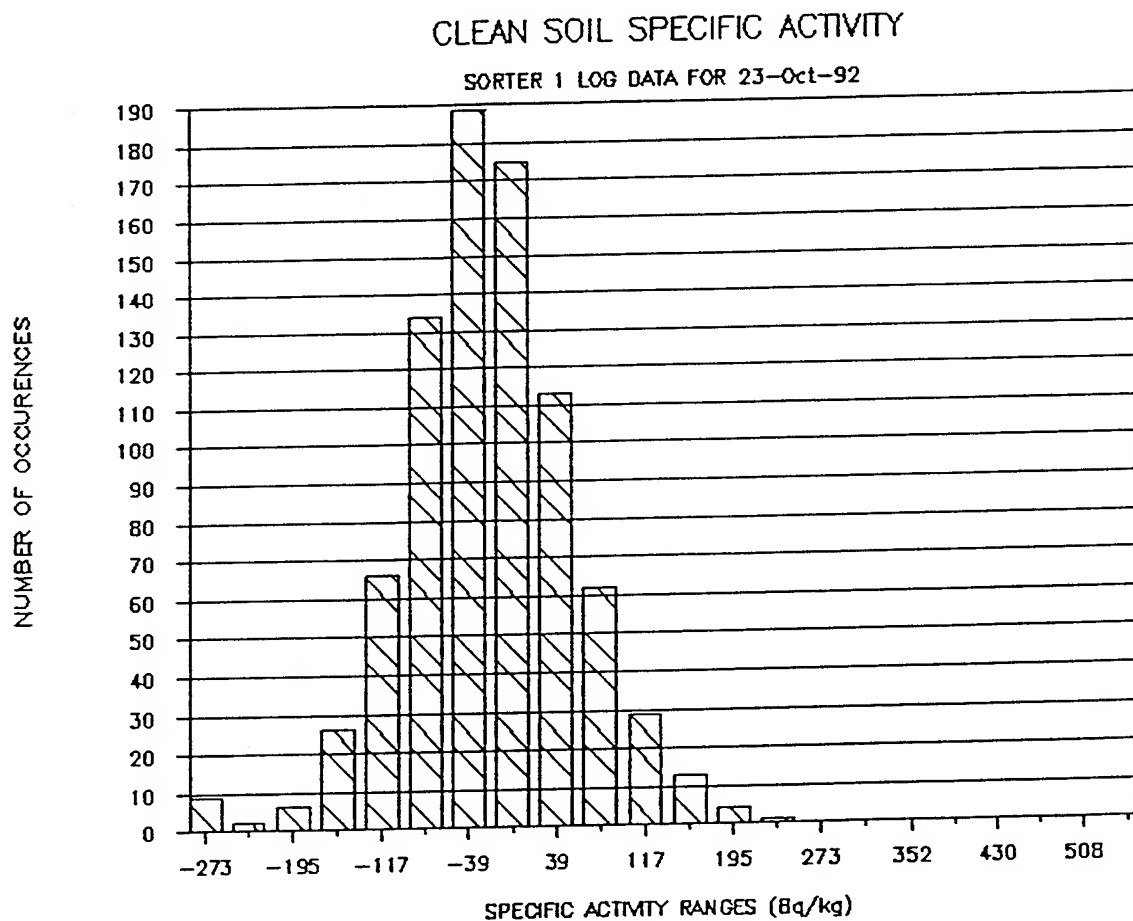
2-SEC COUNT PERIODS 8,140
 2-SEC RECORDS WITH SORTS 305 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	71	86.6%
3 DETECTORS	10	12.2%
4 DETECTORS	1	1.2%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	82	

NET 2-SEC RECORDS WITH SORTS 223
 2-SEC PERIODS WITH NO SORTS 7,917
 AVG TIME BETWEEN 2-SEC SORTS 73.0 sec

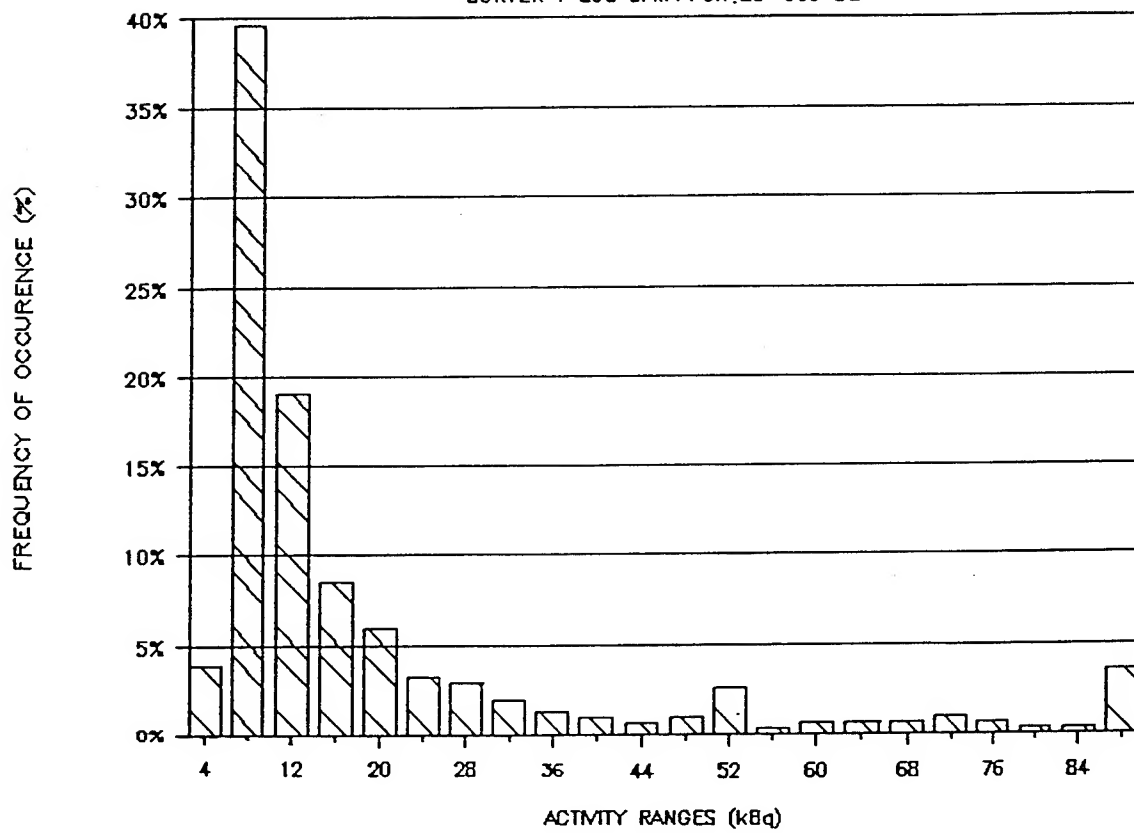
1-GATE SORTS	145	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	0	0.0%	-14000	9	-273	4000	12	3.9%
2	14	9.7%	-12000	2	-234	8000	121	39.7%
3	19	13.1%	-10000	6	-195	12000	58	19.0%
4	33	22.8%	-8000	26	-156	16000	26	8.5%
5	40	27.6%	-6000	66	-117	20000	18	5.9%
6	23	15.9%	-4000	134	-78	24000	10	3.3%
7	12	8.3%	-2000	189	-39	28000	9	3.0%
8	4	2.8%	0	175	0	32000	6	2.0%
TOTAL	145		2000	113	39	36000	4	1.3%
			4000	62	78	40000	3	1.0%
2-GATE SORTS	160		6000	29	117	44000	2	0.7%
DETECTO	SORTS	FREQ%	8000	13	156	48000	3	1.0%
8			10000	4	195	52000	8	2.6%
9	5	3.1%	12000	1	234	56000	1	0.3%
10	21	13.1%	14000	0	273	60000	2	0.7%
11	32	20.0%	16000	0	313	64000	2	0.7%
12	45	28.1%	18000	0	352	68000	2	0.7%
13	31	19.4%	20000	0	391	72000	3	1.0%
14	16	10.0%	22000	0	430	76000	2	0.7%
15	10	6.3%	24000	0	469	80000	1	0.3%
TOTAL	160		26000	0	508	84000	1	0.3%
			>28000	0	0	>84000	11	3.6%
			TOTAL	829		TOTAL	305	
HPE	317		GATE1	305				
MPE	285		GATE2	160				
DISE	332							

REC CODE EXPLANATION



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 23-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 23-Oct-92

AVERAGE BACKGROUND COUNT RATE	0.81 ± 0.03 c/sec		
SORTER SOIL DENSITY	1.1 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		0.65 tons	40.2 tons
MAXIMUM/SORT		49.4 kg	51.2 kg
MINIMUM/SORT		0.6 kg	44.2 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			98.4%
EQUIVALENT SOIL-IN-GROUND	0.51 yd ³	31.9 yd ³	32.4 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	5,449 kBq		
MAXIMUM/SORT	490 kBq		
MINIMUM/SORT	2.6 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	2,449 kBq	2,272 kBq	
MINIMUM/SORT	331 kBq	17 kBq	
SPECIFIC ACTIVITY	0 Bq	-14 kBq	
	3,775 Bq/kg	57 Bq/kg	

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	12:43 PM	
PLANT STARTUP TIME		5.73 hr
PROCESSING END	05:16 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.24 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		4.54 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		4.43 hr
TOTAL SYSTEM PAUSE TIME		0.14 hr
TOTAL DOWNTIME (MAX-ACTUAL)		0.11 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		44.3%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	1,062
NONPROCESS RECORDS (Test, calibration, etc)	38

20-SEC PROCESS RECORDS

TOTAL SORT	798
NO SORT	6 MD>0 & MND=0
SOME SORT	492 AD=0 & MD=0 & MND>0
UNEXPLAINED RECORDS	306 AD>0&0<MD<MNDmax&MND<MNDmax
0<AD<1kBq & MD>0	(6)
AD=0 & MD	0
AD<0 & MD	0

JA SOIL CLEANUP PLANT LOG SUMMARY

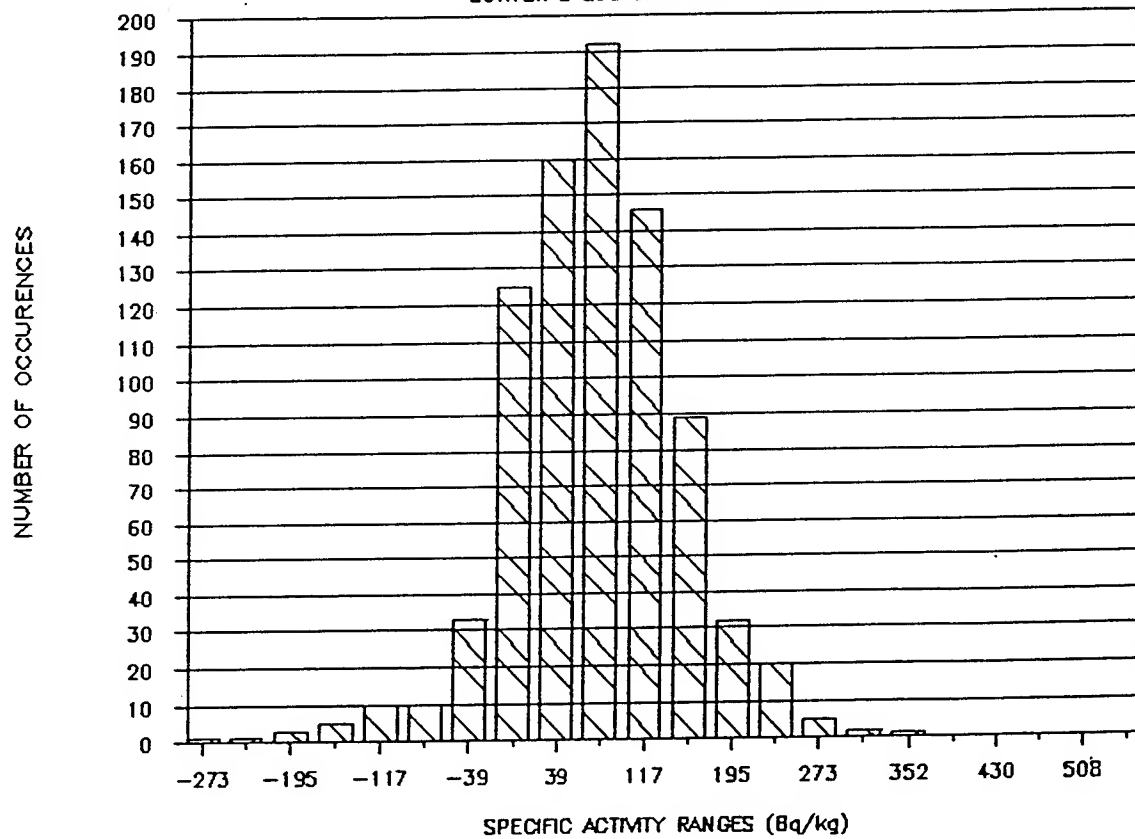
2-SEC COUNT PERIODS 7,980
 2-SEC RECORDS WITH SORTS 264 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 66 85.7%
 3 DETECTORS 8 10.4%
 4 DETECTORS 3 3.9%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 77
 NET 2-SEC RECORDS WITH SORTS 187
 2-SEC PERIODS WITH NO SORTS 7,793
 AVG TIME BETWEEN 2-SEC SORTS 85.3 sec

1-GATE SORTS	138	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(k8q)
1	2	1.4%	-14000	1	-273	4000	22	8.3%
2	18	13.0%	-12000	1	-234	8000	109	41.1%
3	23	16.7%	-10000	3	-195	12000	45	17.0%
4	31	22.5%	-8000	5	-156	16000	25	9.4%
5	34	24.6%	-6000	10	-117	20000	12	4.5%
6	17	12.3%	-4000	10	-78	24000	12	4.5%
7	10	7.2%	-2000	33	-39	28000	5	1.9%
8	3	2.2%	0	125	0	32000	12	4.5%
TOTAL	138		2000	160	39	36000	1	0.4%
			4000	192	78	40000	1	0.4%
2-GATE SORTS	126	6000	146	117	44000	1	0.4%	44
DETECTO	SORTS	FREQ%	8000	89	156	48000	2	0.8%
8			10000	32	195	52000	1	0.4%
9	9	7.1%	12000	20	234	56000	1	0.4%
10	13	10.2%	14000	5	273	60000	0	0.0%
11	30	23.6%	16000	2	313	64000	3	1.1%
12	29	22.8%	18000	1	352	68000	1	0.4%
13	29	22.8%	20000	0	391	72000	1	0.4%
14	12	9.4%	22000	0	430	76000	1	0.4%
15	5	3.9%	24000	0	469	80000	1	0.4%
TOTAL	127		26000	0	508	84000	0	0.0%
			>28000	0	0	>84000	9	3.4%
			TOTAL	835		TOTAL	265	
HPE	260		GATE1	264				
MPE	298		GATE2	126				
DISE	462							

REC CODE EXPLANATION

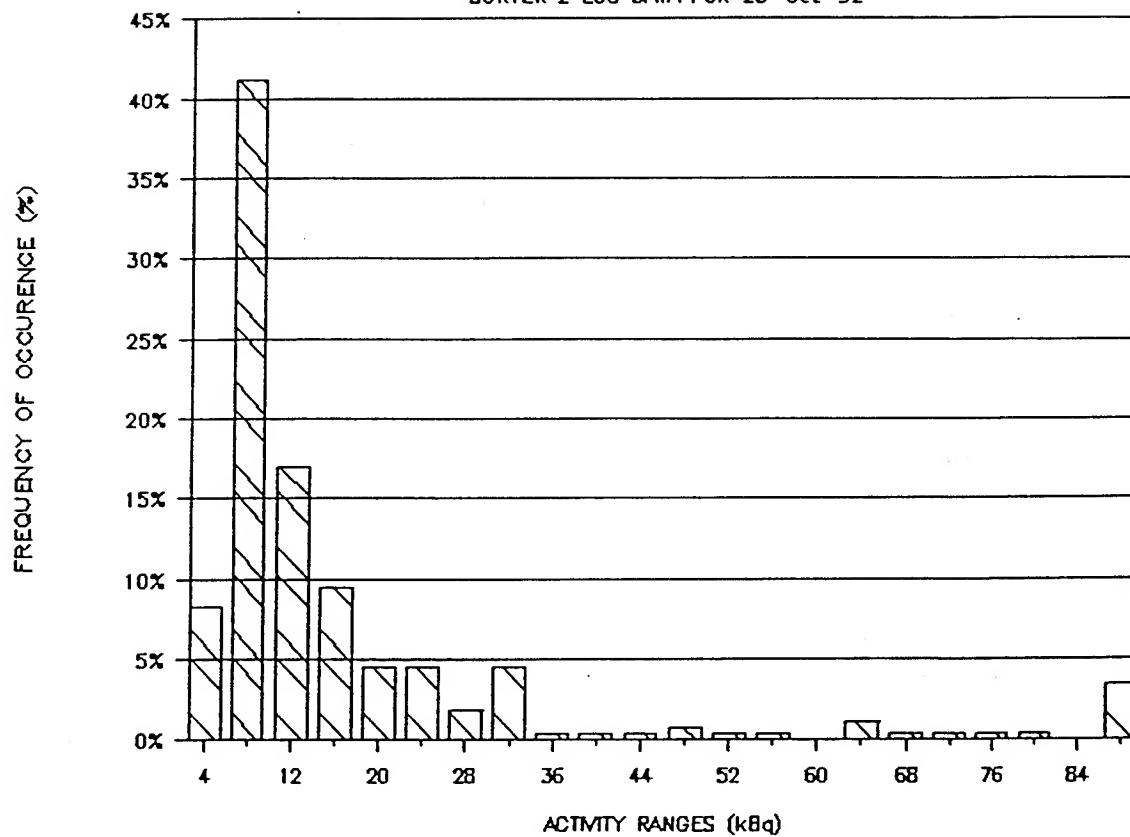
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 23-Oct-92



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 23-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 21-Oct-92

AVERAGE BACKGROUND COUNT RATE	0.77 ± 0.05 c/sec		
SORTER SOIL DENSITY	0.8 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
	CONTAMINATED	CLEAN	
MASS TOTAL	0.63 tons	39.4 tons	
MAXIMUM/SORT	39.1 kg	37.3 kg	
MINIMUM/SORT	0.5 kg	34 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			98.4%
EQUIVALENT SOIL-IN-GROUND	0.50 yd ³	31.3 yd ³	31.8 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	4,888 kBq		
MAXIMUM/SORT	173 kBq		
MINIMUM/SORT	3.4 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	2,097 kBq	(2,721)kBq	
MAXIMUM/SORT	83 kBq	11 kBq	
MINIMUM/SORT	-10728 Bq	-16 kBq	
SPECIFIC ACTIVITY	3,331 Bq/kg	(69)Bq/kg	

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	07:42 AM	
PLANT STARTUP TIME		0.70 hr
PROCESSING END	04:53 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.62 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		9.19 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		5.97 hr
TOTAL SYSTEM PAUSE TIME		1.18 hr
TOTAL DOWNTIME (MAX-ACTUAL)		3.22 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		59.6%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	1,365
NONPROCESS RECORDS (Test, calibration, etc)	13

20-SEC PROCESS RECORDS

TOTAL SORT	1,074
NO SORT	6 MD>0 & MND=0
SOME SORT	605 AD=0 & MD=0 & MND>0
UNEXPLAINED RECORDS	463 AD>0&0<MD<MNDmax&MND<MNDmax
0<AD<1kBq & MD>0	0
AD=0 & MD	143
AD<0 & MD	0
	3

JA SOIL CLEANUP PLANT LOG SUMMARY

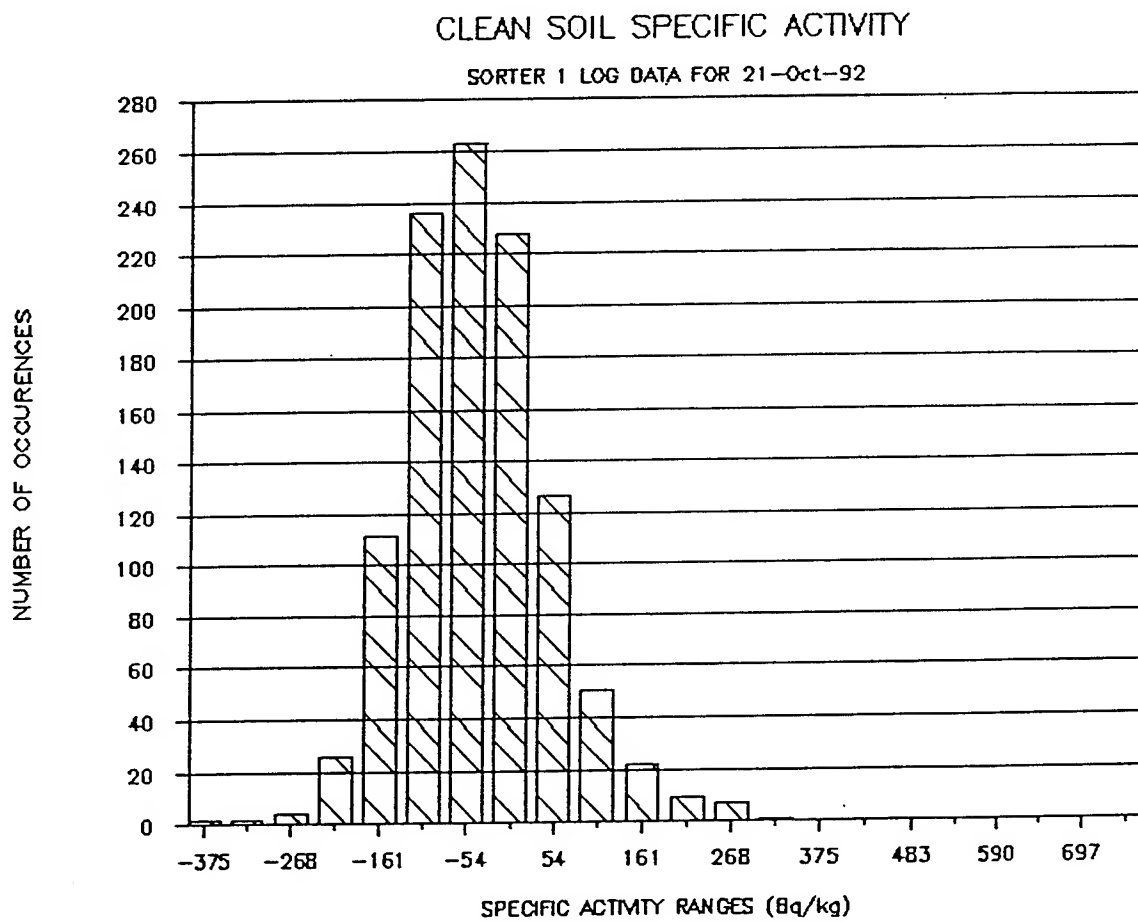
2-SEC COUNT PERIODS 10,740
 2-SEC RECORDS WITH SORTS 291 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	63	79.7%
3 DETECTORS	15	19.0%
4 DETECTORS	1	1.3%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	79	

NET 2-SEC RECORDS WITH SORTS 212
 2-SEC PERIODS WITH NO SORTS 10,528
 AVG TIME BETWEEN 2-SEC SORTS 101.3 sec

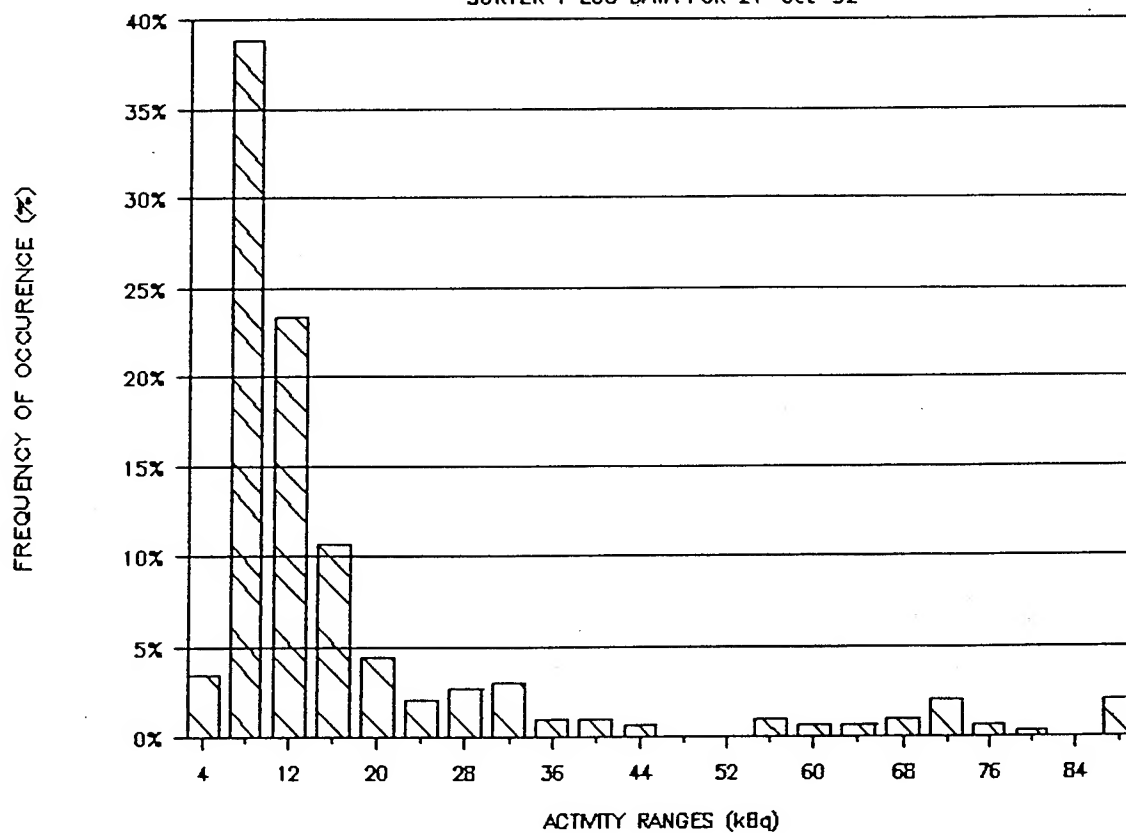
1-GATE SORTS	136	ACT_MD	NUMBER	SPEC_A	ACT_P	SORT FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)
1	3	2.2%	-14000	2	-375	4000	10 3.4%
2	14	10.3%	-12000	2	-322	8000	113 38.8%
3	27	19.9%	-10000	4	-268	12000	68 23.4%
4	27	19.9%	-8000	26	-214	16000	31 10.7%
5	19	14.0%	-6000	112	-161	20000	13 4.5%
6	18	13.2%	-4000	236	-107	24000	6 2.1%
7	21	15.4%	-2000	263	-54	28000	8 2.7%
8	7	5.1%	0	228	0	32000	9 3.1%
TOTAL	136		2000	127	54	36000	3 1.0%
			4000	51	107	40000	3 1.0%
2-GATE SORTS	155		6000	22	161	44000	2 0.7%
DETECTO	SORTS	FREQ%	8000	9	214	48000	0 0.0%
8			10000	7	268	52000	0 0.0%
9	7	4.5%	12000	1	322	56000	3 1.0%
10	23	14.8%	14000	0	375	60000	2 0.7%
11	34	21.9%	16000	0	429	64000	2 0.7%
12	30	19.4%	18000	0	483	68000	3 1.0%
13	21	13.5%	20000	0	536	72000	6 2.1%
14	19	12.3%	22000	0	590	76000	2 0.7%
15	21	13.5%	24000	0	643	80000	1 0.3%
TOTAL	155		26000	0	697	84000	0 0.0%
			>28000	0	0	>84000	6 2.1%
			TOTAL	1090		TOTAL	291
HPE	303		GATE1	291			
MPE	532		GATE2	155			
DISE	498						

REC CODE EXPLANATION



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 21-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 21-Oct-92

AVERAGE BACKGROUND COUNT RATE 0.78 ± 0.04 c/sec
 SORTER SOIL DENSITY 0.8 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	1.66 tons	38.6 tons
MAXIMUM/SORT	37.3 kg	37.3 kg
MINIMUM/SORT	0.5 kg	31.2 kg

WEIGHT RECOVERY OR VOLUME RECOVERY 95.9%
 EQUIVALENT SOIL-IN-GROUND 1.31 yd³ 30.6 yd³ 31.9 yd³/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)
 TOTAL 3,519 kBq
 MAXIMUM/SORT 188 kBq
 MINIMUM/SORT 3.6 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY 3,758 kBq (401)kBq
 MAXIMUM/SORT 98 kBq 11 kBq
 MINIMUM/SORT -2893 Bq -13 kBq
 SPECIFIC ACTIVITY 2,266 Bq/kg (10)Bq/kg

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	07:42 AM	
PLANT STARTUP TIME		0.70 hr
PROCESSING END	04:51 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.65 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		9.15 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		6.00 hr
TOTAL SYSTEM PAUSE TIME		1.33 hr
TOTAL DOWNTIME (MAX-ACTUAL)		3.15 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		60.0%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 1,303
 NONPROCESS RECORDS (Test, calibration, etc) 10

20-SEC PROCESS RECORDS 1,080
 TOTAL SORT 7 MD>0 & MND=0
 NO SORT 103 AD=0 & MD=0 & MND>0
 SOME SORT 975 AD>0&0<MD<MNDmax&MND<MNDmax
 UNEXPLAINED RECORDS (5)
 0<AD<1kBq & MD>0 146
 AD=0 & MD 0
 AD<0 & MD 1

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 10,800
 2-SEC RECORDS WITH SORTS 223 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

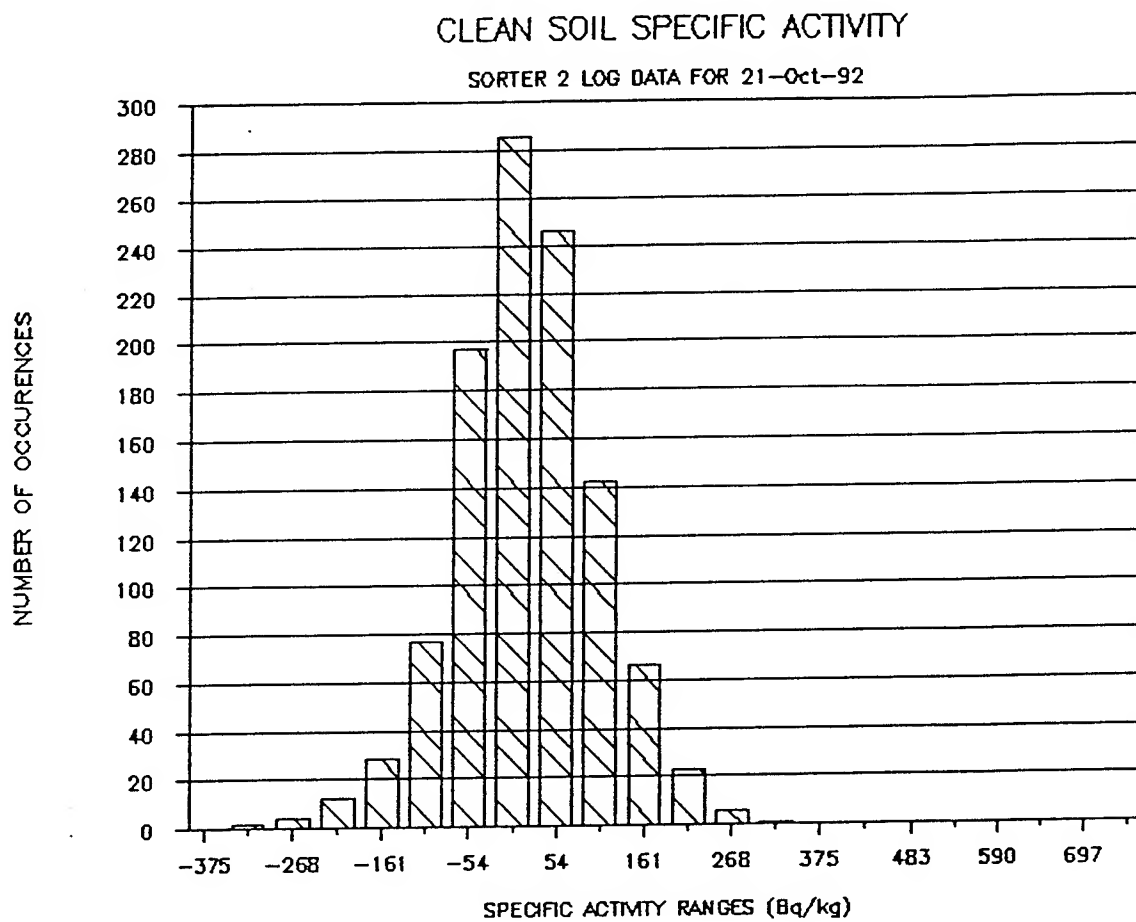
2 DETECTORS	52	80.0%
3 DETECTORS	11	16.9%
4 DETECTORS	2	3.1%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	65	

NET 2-SEC RECORDS WITH SORTS 158
 2-SEC PERIODS WITH NO SORTS 10,642
 AVG TIME BETWEEN 2-SEC SORTS 136.7 sec

1-GATE SORTS	119	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	9	7.6%	-14000	0	-375	4000	5	2.2%
2	12	10.1%	-12000	2	-322	8000	93	41.7%
3	22	18.5%	-10000	4	-268	12000	47	21.1%
4	19	16.0%	-8000	12	-214	16000	21	9.4%
5	20	16.8%	-6000	28	-161	20000	11	4.9%
6	21	17.6%	-4000	77	-107	24000	10	4.5%
7	11	9.2%	-2000	197	-54	28000	4	1.8%
8	5	4.2%	0	286	0	32000	6	2.7%
TOTAL	119		2000	246	54	36000	4	1.8%
			4000	142	107	40000	2	0.9%
2-GATE SORTS	104	6000	66	161	44000	4	1.8%	44
DETECTO	SORTS	FREQ%	8000	23	214	48000	1	0.4%
8			10000	6	268	52000	1	0.4%
9	9	8.7%	12000	1	322	56000	3	1.3%
10	11	10.6%	14000	0	375	60000	2	0.9%
11	24	23.1%	16000	0	429	64000	3	1.3%
12	22	21.2%	18000	0	483	68000	0	0.0%
13	21	20.2%	20000	0	536	72000	1	0.4%
14	15	14.4%	22000	0	590	76000	1	0.4%
15	2	1.9%	24000	0	643	80000	2	0.9%
TOTAL	104		26000	0	697	84000	0	0.0%
			>28000	0	0	>84000	2	0.9%
			TOTAL	1090		TOTAL	223	

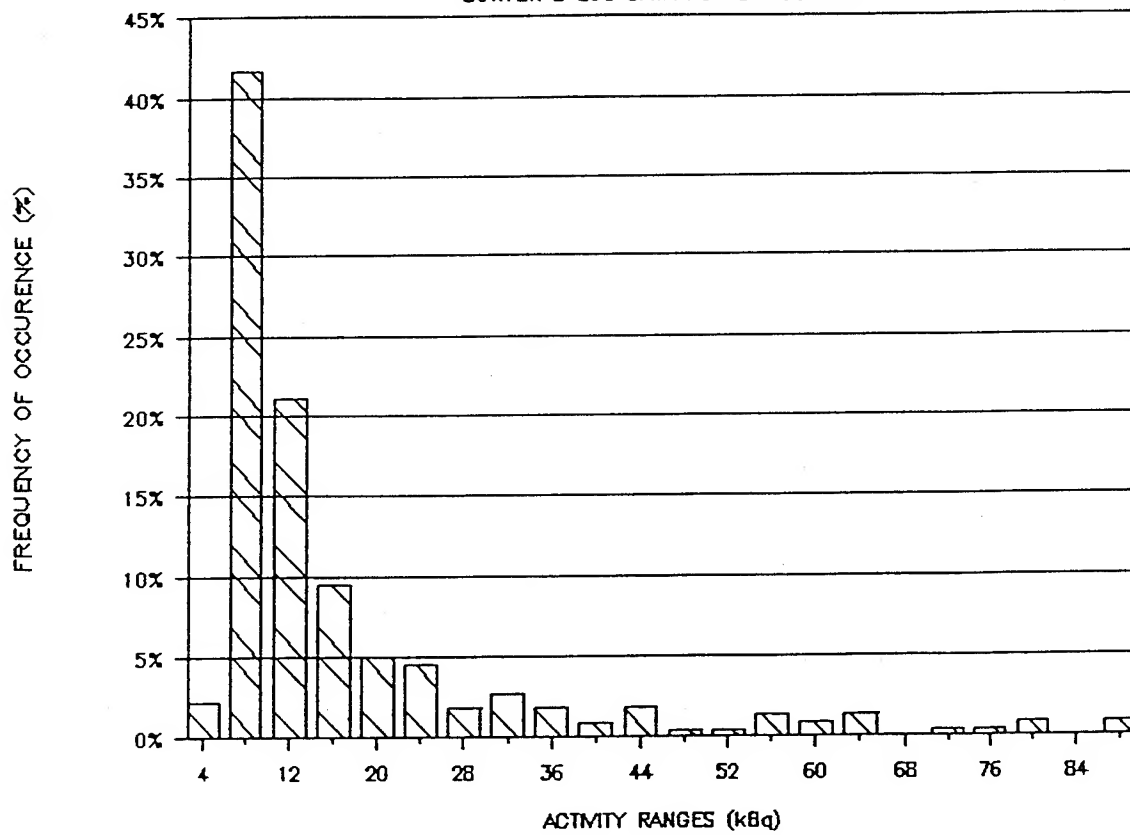
HPE	225	GATE1	223
MPE	2787	GATE2	104
DISE	539		

REC CODE EXPLANATION



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 21-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 20-Oct-92

AVERAGE BACKGROUND COUNT RATE	0.75 ± 0.05 c/sec		
SORTER SOIL DENSITY	0.8 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		0.53 tons	35.9 tons
MAXIMUM/SORT		4.2 kg	37.3 kg
MINIMUM/SORT		0.5 kg	33.1 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			98.5%
EQUIVALENT SOIL-IN-GROUND	0.42 yd ³	28.5 yd ³	28.9 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	8,104 kBq		
MAXIMUM/SORT	204 kBq		
MINIMUM/SORT	3.5 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	3,222 kBq	(1,594)kBq	
MAXIMUM/SORT	109 kBq	12 kBq	
MINIMUM/SORT	0 Bq	-16 kBq	
SPECIFIC ACTIVITY	6,067 Bq/kg	(44)Bq/kg	
WORK DAY			
WORK DAY START	07:00 AM		
PROCESSING START	10:01 AM		
PLANT STARTUP TIME		3.03 hr	
PROCESSING END	04:43 PM		
WORK DAY END	05:30 PM		
PLANT SHUTDOWN TIME		0.78 hr	
LUNCH PERIOD		0.5 hr	
WORK HOURS		10.0 hr	
MAX PROCESS HOURS (END-START)		6.70 hr	
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		5.43 hr	
TOTAL SYSTEM PAUSE TIME		0.00 hr	
TOTAL DOWNTIME (MAX-ACTUAL)		1.27 hr	
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		54.2%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	1,488		
NONPROCESS RECORDS (Test, calibration, etc)	35		
20-SEC PROCESS RECORDS	977		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	457 AD=0 & MD=0 & MND>0		
SOME SORT	520 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	102		
AD=0 & MD	0		
AD<0 & MD	0		

JA SOIL CLEANUP PLANT LOG SUMMARY

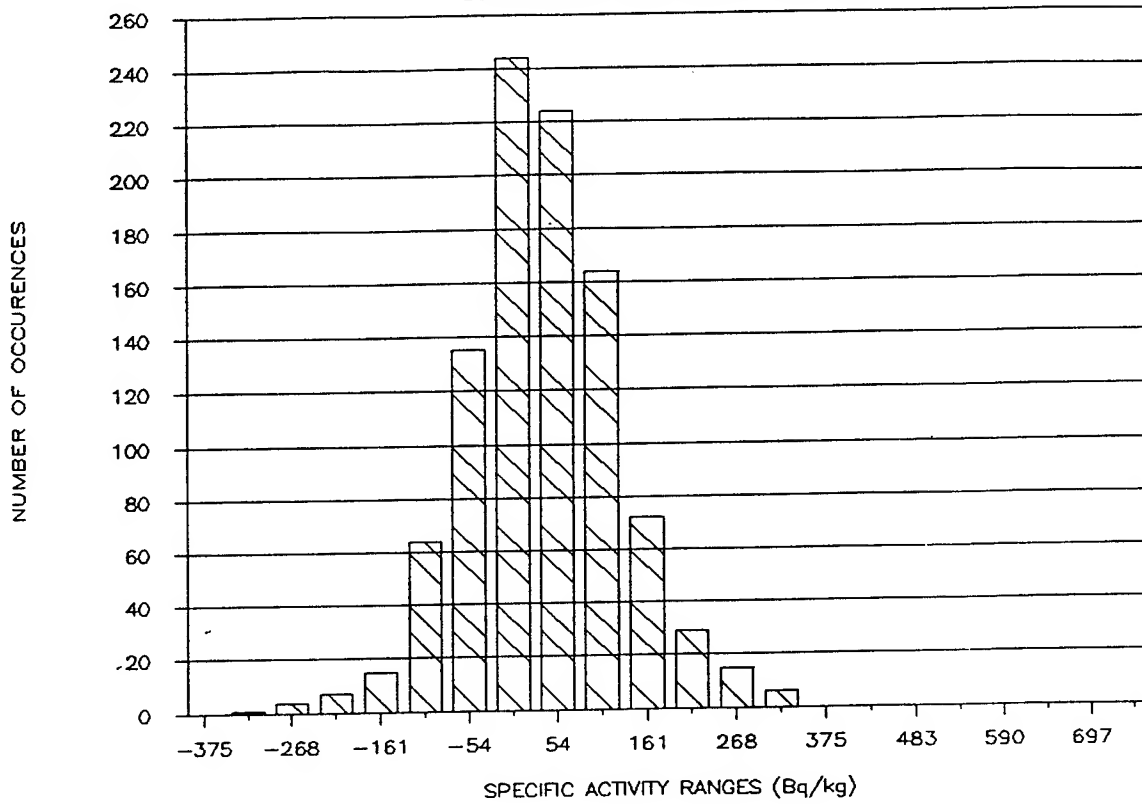
2-SEC COUNT PERIODS 9,770
 2-SEC RECORDS WITH SORTS 511 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 117 81.3%
 3 DETECTORS 25 17.4%
 4 DETECTORS 2 1.4%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 144
 NET 2-SEC RECORDS WITH SORTS 367
 2-SEC PERIODS WITH NO SORTS 9,403
 AVG TIME BETWEEN 2-SEC SORTS 53.2 sec

1-GATE SORTS	253	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P	
DETECTO	SORTS	FREQ%	(Bq)	(#) (Bq/kg)	(Bq)	(#)		(k8q)	
1	5	2.0%	-14000	5	-375	4000	10	1.9%	4
2	19	7.5%	-12000	15	-322	8000	210	40.9%	8
3	37	14.6%	-10000	15	-268	12000	104	20.2%	12
4	50	19.8%	-8000	20	-214	16000	54	10.5%	16
5	43	17.0%	-6000	71	-161	20000	38	7.4%	20
6	37	14.6%	-4000	136	-107	24000	23	4.5%	24
7	45	17.8%	-2000	205	-54	28000	14	2.7%	28
8	17	6.7%	0	249	0	32000	10	1.9%	32
TOTAL	253		2000	153	54	36000	13	2.5%	36
			4000	66	107	40000	5	1.0%	40
2-GATE SORTS	258	6000	37	161	44000	4	0.8%	44	
DETECTO	SORTS	FREQ%	8000	18	214	48000	1	0.2%	48
8			10000	11	268	52000	5	1.0%	52
9	11	4.2%	12000	6	322	56000	3	0.6%	56
10	31	11.9%	14000	3	375	60000	1	0.2%	60
11	50	19.2%	16000	0	429	64000	4	0.8%	64
12	49	18.8%	18000	0	483	68000	1	0.2%	68
13	46	17.6%	20000	0	536	72000	2	0.4%	72
14	47	18.0%	22000	0	590	76000	0	0.0%	76
15	27	10.3%	24000	0	643	80000	0	0.0%	80
TOTAL	261		26000	0	697	84000	1	0.2%	84
			>28000	0	0	>84000	11	2.1%	>84
			TOTAL	1010		TOTAL	514		
HPE	504		GATE1	511					
MPE	626		GATE2	258					
DISE	0								

REC CODE EXPLANATION

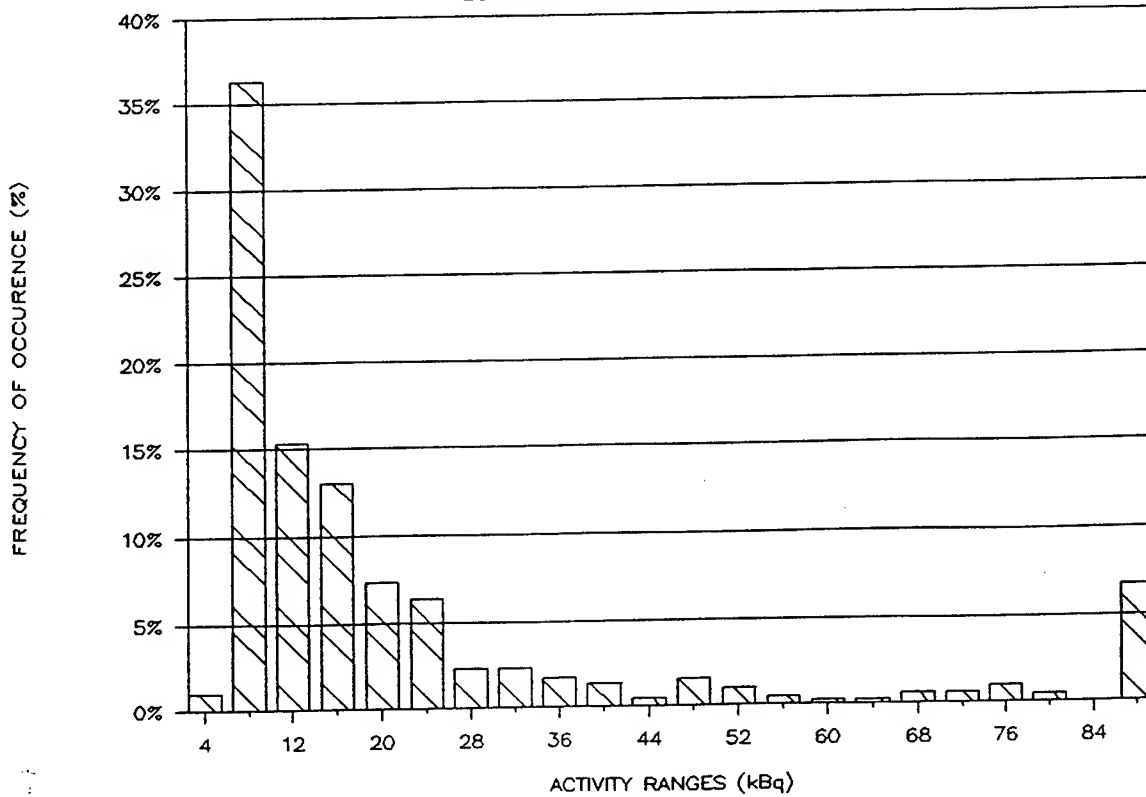
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 20-Oct-92



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 20-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 19-Oct-92

AVERAGE BACKGROUND COUNT RATE 0.76 ± 0.05 c/sec
 SORTER SOIL DENSITY 1.1 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.91 tons	62.6 tons
MAXIMUM/SORT	53.8 kg	51.2 kg
MINIMUM/SORT	0.6 kg	42.9 kg

WEIGHT RECOVERY OR VOLUME RECOVERY 98.6%
 EQUIVALENT SOIL-IN-GROUND 0.72 yd³ 49.6 yd³ 50.3 yd³/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)
 TOTAL 30,417 kBq
 MAXIMUM/SORT 2,161 kBq
 MINIMUM/SORT 2.9 kBq

	9,544 kBq	(1,955)kBq
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY		
MAXIMUM/SORT	1253 kBq	13 kBq
MINIMUM/SORT	-5139 Bq	-12 kBq
SPECIFIC ACTIVITY	10,464 Bq/kg	(31)Bq/kg

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	08:02 AM	
PLANT STARTUP TIME		1.04 hr
PROCESSING END	05:15 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.24 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		9.23 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		6.88 hr
TOTAL SYSTEM PAUSE TIME		1.16 hr
TOTAL DOWNTIME (MAX-ACTUAL)		2.34 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		68.8%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 2,164
 NONPROCESS RECORDS (Test, calibration, etc) 36

20-SEC PROCESS RECORDS		1,239
TOTAL SORT		2 MD>0 & MND=0
NO SORT		726 AD=0 & MD=0 & MND>0
SOME SORT		511 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS		0
0<AD<1kBq & MD>0	3	
AD=0 & MD	0	
AD<0 & MD	1	

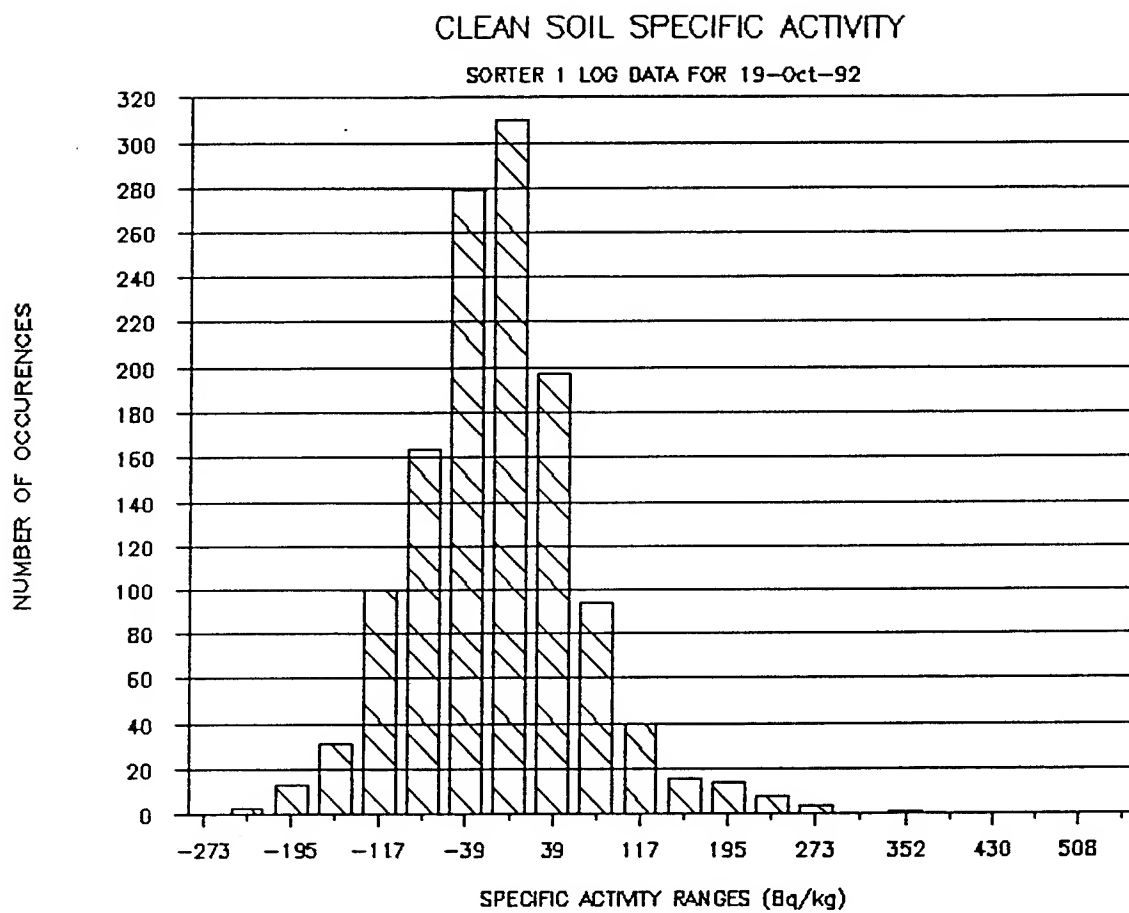
JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 12,390
 2-SEC RECORDS WITH SORTS 925 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 241 74.6%
 3 DETECTORS 61 18.9%
 4 DETECTORS 17 5.3%
 5 DETECTORS 4 1.2%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 323

NET 2-SEC RECORDS WITH SORTS 602
 2-SEC PERIODS WITH NO SORTS 11,788
 AVG TIME BETWEEN 2-SEC SORTS 41.2 sec

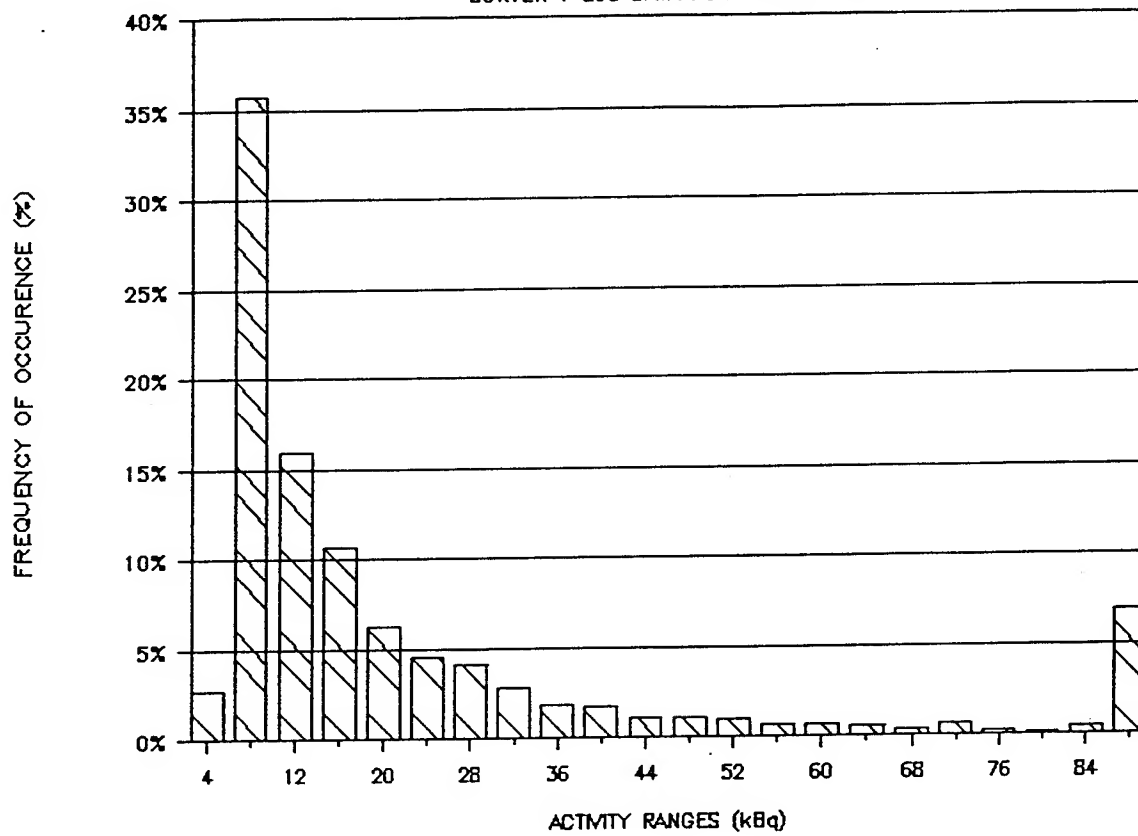
1-GATE SORTS	469	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	20	4.3%	-14000	0	-273	4000	25	2.7%
2	60	12.8%	-12000	3	-234	8000	331	35.7%
3	79	16.8%	-10000	13	-195	12000	148	16.0%
4	94	20.0%	-8000	31	-156	16000	99	10.7%
5	61	13.0%	-6000	100	-117	20000	58	6.3%
6	64	13.6%	-4000	164	-78	24000	42	4.5%
7	61	13.0%	-2000	279	-39	28000	38	4.1%
8	30	6.4%	0	310	0	32000	26	2.8%
TOTAL	469		2000	197	39	36000	17	1.8%
			4000	94	78	40000	16	1.7%
2-GATE SORTS	456	6000	40	117	44000	10	1.1%	44
DETECTO	SORTS	FREQ%	8000	16	156	48000	10	1.1%
8			10000	14	195	52000	9	1.0%
9	46	10.1%	12000	8	234	56000	6	0.6%
10	71	15.5%	14000	4	273	60000	6	0.6%
11	90	19.7%	16000	0	313	64000	5	0.5%
12	79	17.3%	18000	1	352	68000	3	0.3%
13	58	12.7%	20000	0	391	72000	6	0.6%
14	67	14.7%	22000	0	430	76000	2	0.2%
15	46	10.1%	24000	0	469	80000	1	0.1%
TOTAL	457		26000	0	508	84000	4	0.4%
			>28000	0	0	>84000	64	6.9%
			TOTAL	1274		TOTAL	926	
HPE	861		GATE1	925				
MPE	402		GATE2	456				
DISE	166							

REC CODE EXPLANATION



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 19-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 19-Oct-92

AVERAGE BACKGROUND COUNT RATE 0.79 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.1 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	1.10 tons	62.4 tons
MAXIMUM/SORT	51.2 kg	51.2 kg
MINIMUM/SORT	0.6 kg	44.8 kg

		98.3%
WEIGHT RECOVERY OR VOLUME RECOVERY		
EQUIVALENT SOIL-IN-GROUND	0.87 yd ³	49.4 yd ³ 50.3 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	19,450 kBq
MAXIMUM/SORT	1,332 kBq
MINIMUM/SORT	3.2 kBq

	7,261 kBq	2,598 kBq
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY		
MAXIMUM/SORT	890 kBq	17 kBq
MINIMUM/SORT	-3326 Bq	-10 kBq
SPECIFIC ACTIVITY	6,616 Bq/kg	42 Bq/kg

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	08:02 AM	
PLANT STARTUP TIME		1.03 hr
PROCESSING END	05:16 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.24 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		9.24 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		6.88 hr
TOTAL SYSTEM PAUSE TIME		1.16 hr
TOTAL DOWNTIME (MAX-ACTUAL)		2.35 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		68.8%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,103
NONPROCESS RECORDS (Test, calibration, etc)	37

20-SEC PROCESS RECORDS	1,239
TOTAL SORT	3 MD>0 & MND=0
NO SORT	592 AD=0 & MD=0 & MND>0
SOME SORT	645 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	(1)
0<AD<1kBq & MD>0	0
AD=0 & MD	0
AD<0 & MD	1

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 12,390
 2-SEC RECORDS WITH SORTS 864 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 218 80.4%
 3 DETECTORS 45 16.6%
 4 DETECTORS 7 2.6%
 5 DETECTORS 1 0.4%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 271

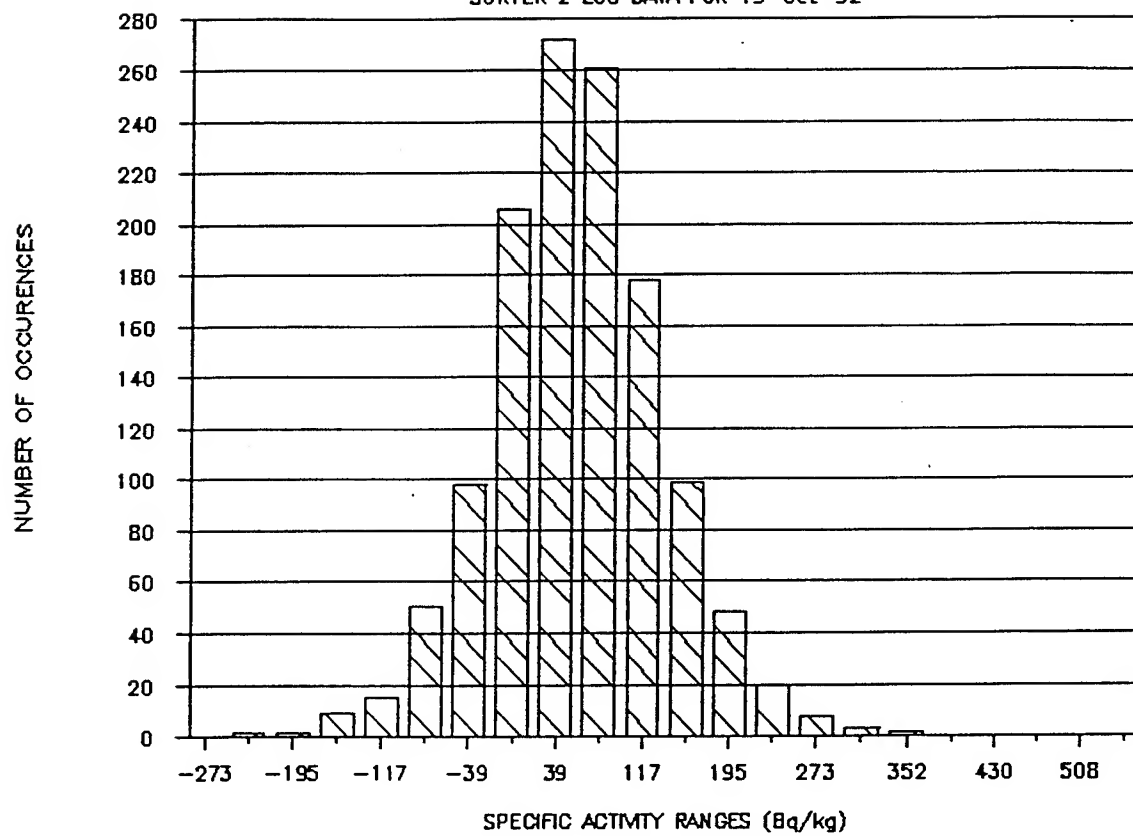
NET 2-SEC RECORDS WITH SORTS 593
 2-SEC PERIODS WITH NO SORTS 11,797
 AVG TIME BETWEEN 2-SEC SORTS 41.8 sec

1-GATE SORTS	451	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	21	4.7%	-14000	0	-273	4000	15	1.7%
2	58	12.9%	-12000	2	-234	8000	331	38.2%
3	86	19.1%	-10000	2	-195	12000	173	20.0%
4	98	21.7%	-8000	9	-156	16000	78	9.0%
5	77	17.1%	-6000	15	-117	20000	56	6.5%
6	54	12.0%	-4000	51	-78	24000	41	4.7%
7	42	9.3%	-2000	98	-39	28000	31	3.6%
8	15	3.3%	0	206	0	32000	20	2.3%
TOTAL	451		2000	272	39	36000	24	2.8%
			4000	261	78	40000	13	1.5%
2-GATE SORTS	413	6000	178	117		44000	15	1.7%
DETECTO	SORTS	FREQ%	8000	99	156	48000	7	0.8%
8			10000	48	195	52000	6	0.7%
9	47	11.3%	12000	20	234	56000	6	0.7%
10	56	13.5%	14000	8	273	60000	1	0.1%
11	84	20.2%	16000	3	313	64000	5	0.6%
12	77	18.6%	18000	2	352	68000	2	0.2%
13	73	17.6%	20000	0	391	72000	3	0.3%
14	57	13.7%	22000	0	430	76000	5	0.6%
15	21	5.1%	24000	0	469	80000	3	0.3%
TOTAL	415		26000	0	508	84000	2	0.2%
			>28000	0	0	>84000	29	3.3%
			TOTAL	1274		TOTAL	866	
HPE	830		GATE1	864				
MPE	661		GATE2	413				
DISE	234							

REC CODE EXPLANATION

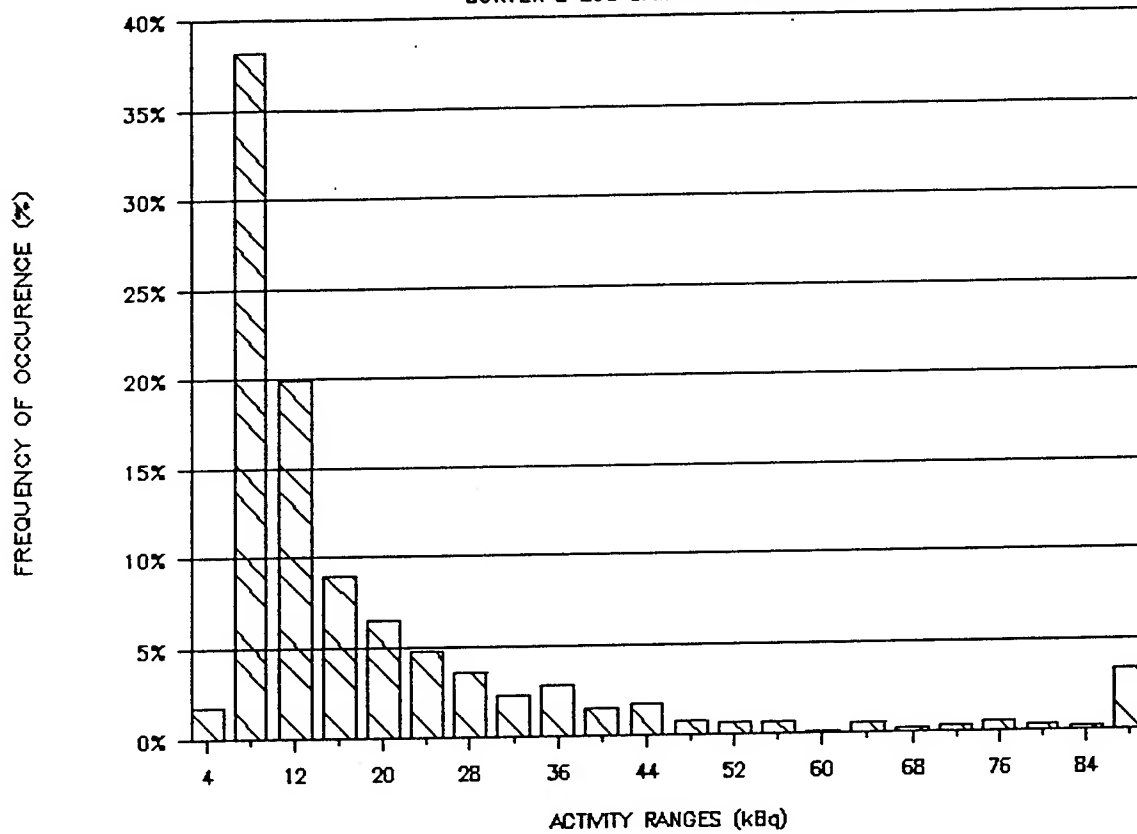
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 19-Oct-92



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 19-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 17-Oct-92

AVERAGE BACKGROUND COUNT RATE 0.73 ± 0.05 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.54 tons	54.4 tons
MAXIMUM/SORT	6.4 kg	55.9 kg
MINIMUM/SORT	0.6 kg	44.8 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		99.0%
EQUIVALENT SOIL-IN-GROUND	0.42 yd ³	43.1 yd ³ 43.5 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	11,773 kBq
MAXIMUM/SORT	699 kBq
MINIMUM/SORT	3.5 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	3,866 kBq	(968)kBq
MAXIMUM/SORT	442 kBq	15 kBq
MINIMUM/SORT	0 Bq	-12 kBq
SPECIFIC ACTIVITY	7,211 Bq/kg	(18)Bq/kg

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	09:19 AM	
PLANT STARTUP TIME		2.32 hr
PROCESSING END	04:40 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.83 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		7.36 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		5.80 hr
TOTAL SYSTEM PAUSE TIME		0.02 hr
TOTAL DOWNTIME (MAX-ACTUAL)		1.56 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		58.0%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	1,614
NONPROCESS RECORDS (Test, calibration, etc)	30

20-SEC PROCESS RECORDS	1,044
TOTAL SORT	0 MD>0 & MND=0
NO SORT	700 AD=0 & MD=0 & MND>0
SOME SORT	344 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	1
AD=0 & MD	0
AD<0 & MD	0

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 10,440
 2-SEC RECORDS WITH SORTS 570 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	138	80.2%
3 DETECTORS	28	16.3%
4 DETECTORS	6	3.5%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	172	

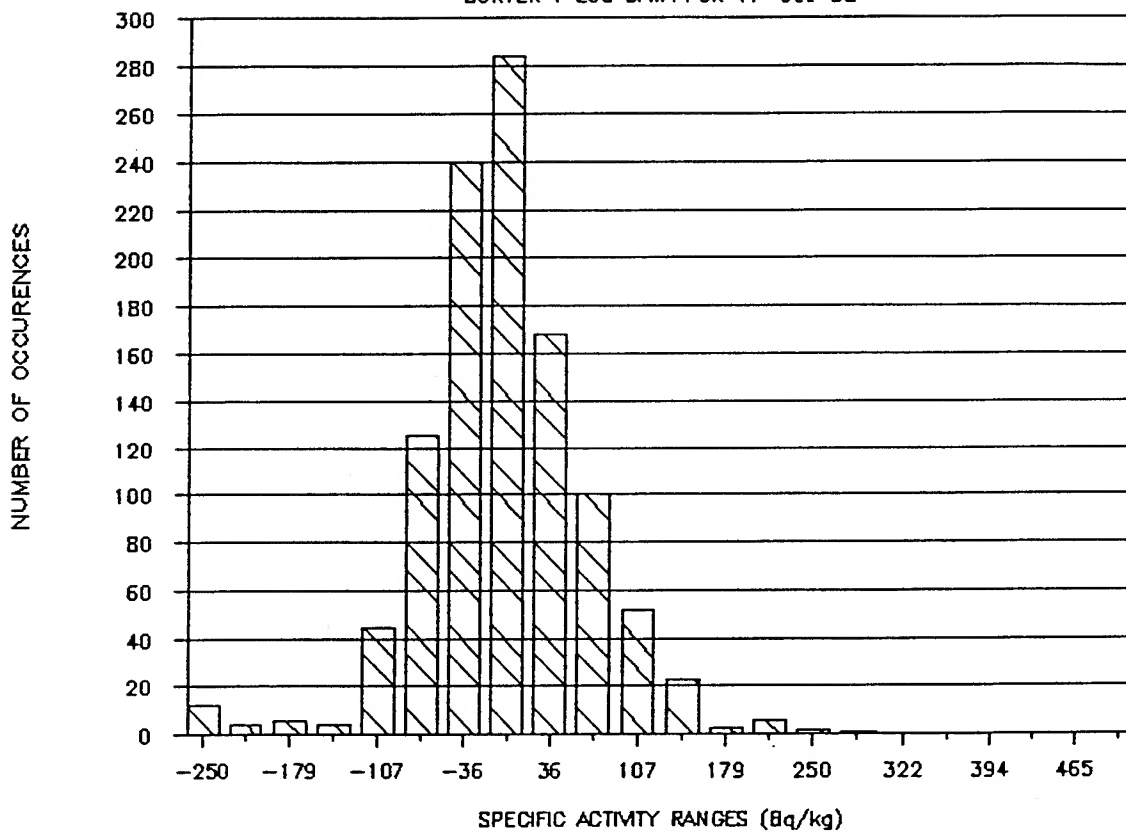
NET 2-SEC RECORDS WITH SORTS 398
 2-SEC PERIODS WITH NO SORTS 10,042
 AVG TIME BETWEEN 2-SEC SORTS 52.5 sec

1-GATE SORTS	293	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	6	2.0%	-14000	12	-250	4000	7	1.2%
2	34	11.5%	-12000	4	-215	8000	214	37.3%
3	54	18.3%	-10000	6	-179	12000	117	20.4%
4	55	18.6%	-8000	4	-143	16000	64	11.2%
5	58	19.7%	-6000	45	-107	20000	39	6.8%
6	34	11.5%	-4000	125	-72	24000	28	4.9%
7	37	12.5%	-2000	240	-36	28000	19	3.3%
8	17	5.8%	0	284	0	32000	9	1.6%
TOTAL	295		2000	168	36	36000	7	1.2%
			4000	100	72	40000	9	1.6%
2-GATE SORTS	277	6000	52	107	44000	8	1.4%	44
DETECTO	SORTS	FREQ%	8000	23	143	48000	5	0.9%
8			10000	3	179	52000	3	0.5%
9	17	6.1%	12000	6	215	56000	5	0.9%
10	43	15.5%	14000	2	250	60000	4	0.7%
11	56	20.1%	16000	1	286	64000	4	0.7%
12	46	16.5%	18000	0	322	68000	5	0.9%
13	51	18.3%	20000	0	358	72000	3	0.5%
14	33	11.9%	22000	0	394	76000	2	0.3%
15	32	11.5%	24000	0	429	80000	0	0.0%
TOTAL	278		26000	0	465	84000	2	0.3%
			>28000	0	0	>84000	19	3.3%
			TOTAL	1075		TOTAL	573	
HPE	548		GATE1	570				
MPE	285		GATE2	277				
DISE	0							

REC CODE EXPLANATION

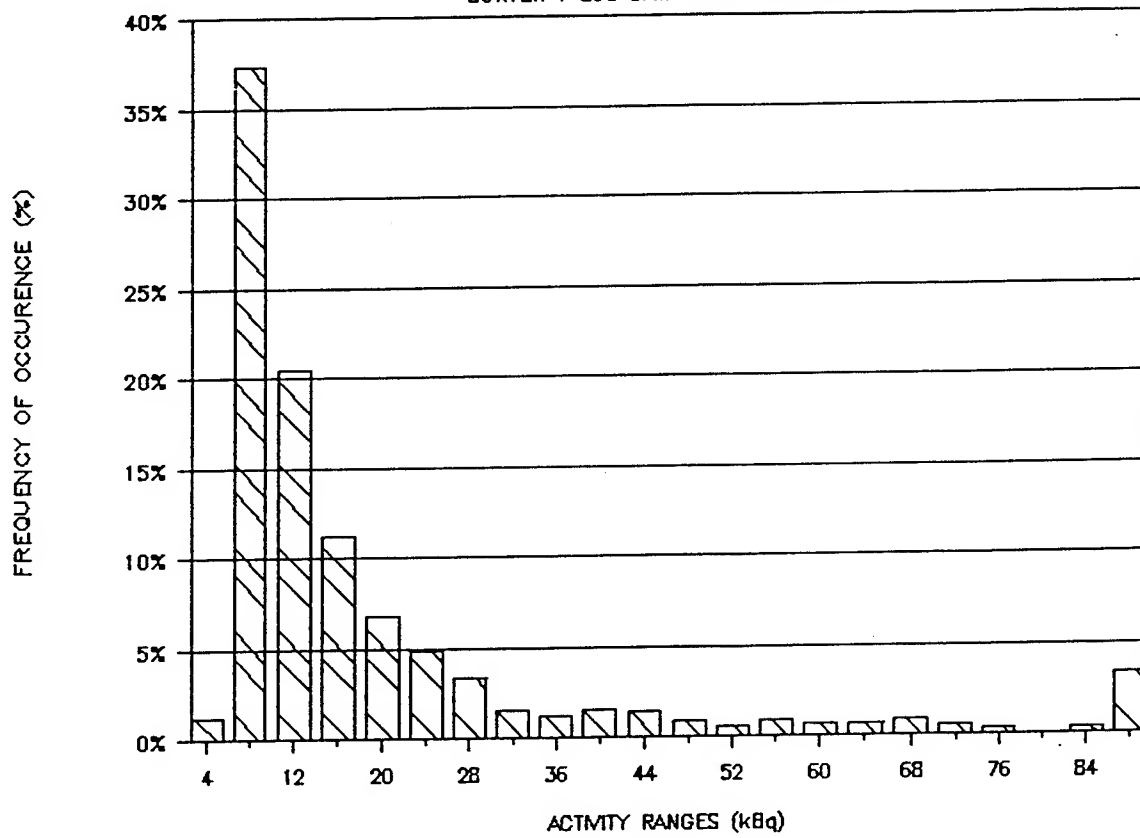
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 17-Oct-92



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 17-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 17-Oct-92

AVERAGE BACKGROUND COUNT RATE 0.76 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.68 tons	54.7 tons
MAXIMUM/SORT	6.4 kg	55.9 kg
MINIMUM/SORT	0.6 kg	44.8 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		98.8%
EQUIVALENT SOIL-IN-GROUND	0.54 yd ³	43.4 yd ³ 43.9 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	14,176 kBq
MAXIMUM/SORT	605 kBq
MINIMUM/SORT	3.3 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	5,422 kBq	2,872 kBq
MAXIMUM/SORT	467 kBq	14 kBq
MINIMUM/SORT	0 Bq	-10 kBq
SPECIFIC ACTIVITY	7,936 Bq/kg	52 Bq/kg

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	09:19 AM	
PLANT STARTUP TIME		2.32 hr
PROCESSING END	04:45 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.75 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		7.43 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		5.86 hr
TOTAL SYSTEM PAUSE TIME		0.00 hr
TOTAL DOWNTIME (MAX-ACTUAL)		1.58 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		58.5%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	1,672
NONPROCESS RECORDS (Test, calibration, etc)	22

20-SEC PROCESS RECORDS	1,054
TOTAL SORT	0 MD>0 & MND=0
NO SORT	578 AD=0 & MD=0 & MND>0
SOME SORT	476 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	0
AD=0 & MD	0
AD<0 & MD	0

JA SOIL CLEANUP PLANT LOG SUMMARY

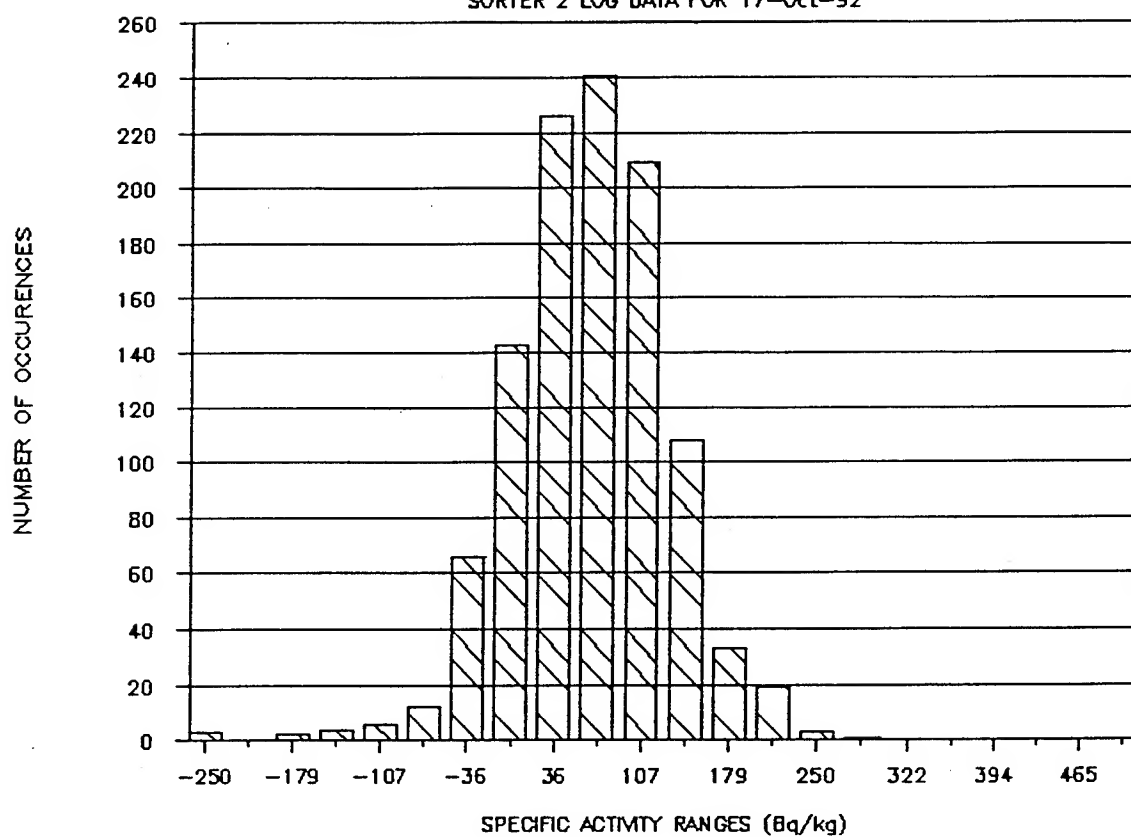
2-SEC COUNT PERIODS 10,540
 2-SEC RECORDS WITH SORTS 618 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 164 77.7%
 3 DETECTORS 38 18.0%
 4 DETECTORS 7 3.3%
 5 DETECTORS 2 0.9%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 211
 NET 2-SEC RECORDS WITH SORTS 407
 2-SEC PERIODS WITH NO SORTS 10,133
 AVG TIME BETWEEN 2-SEC SORTS 51.8 sec

1-GATE SORTS		329	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%		ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	10	3.0%	-14000	3	-250	4000	13	2.1%	4
2	42	12.8%	-12000	0	-215	8000	220	35.6%	8
3	66	20.1%	-10000	2	-179	12000	106	17.2%	12
4	63	19.1%	-8000	4	-143	16000	78	12.6%	16
5	52	15.8%	-6000	6	-107	20000	40	6.5%	20
6	52	15.8%	-4000	12	-72	24000	37	6.0%	24
7	35	10.6%	-2000	66	-36	28000	21	3.4%	28
8	9	2.7%	0	143	0	32000	11	1.8%	32
TOTAL	329		2000	226	36	36000	13	2.1%	36
			4000	241	72	40000	8	1.3%	40
			6000	209	107	44000	7	1.1%	44
2-GATE SORTS		289	8000	108	143	48000	4	0.6%	48
DETECTO	SORTS	FREQ%							
8			10000	33	179	52000	6	1.0%	52
9	27	9.3%	12000	19	215	56000	8	1.3%	56
10	44	15.2%	14000	3	250	60000	7	1.1%	60
11	71	24.6%	16000	1	286	64000	4	0.6%	64
12	51	17.6%	18000	0	322	68000	1	0.2%	68
13	42	14.5%	20000	0	358	72000	4	0.6%	72
14	45	15.6%	22000	0	394	76000	4	0.6%	76
15	9	3.1%	24000	0	429	80000	2	0.3%	80
TOTAL	289		26000	0	465	84000	1	0.2%	84
			>28000	0	0	>84000	23	3.7%	>84
			TOTAL	1076		TOTAL	618		
HPE		582	GATE1		618				
MPE		478	GATE2		289				
DISE		0							

REC CODE EXPLANATION

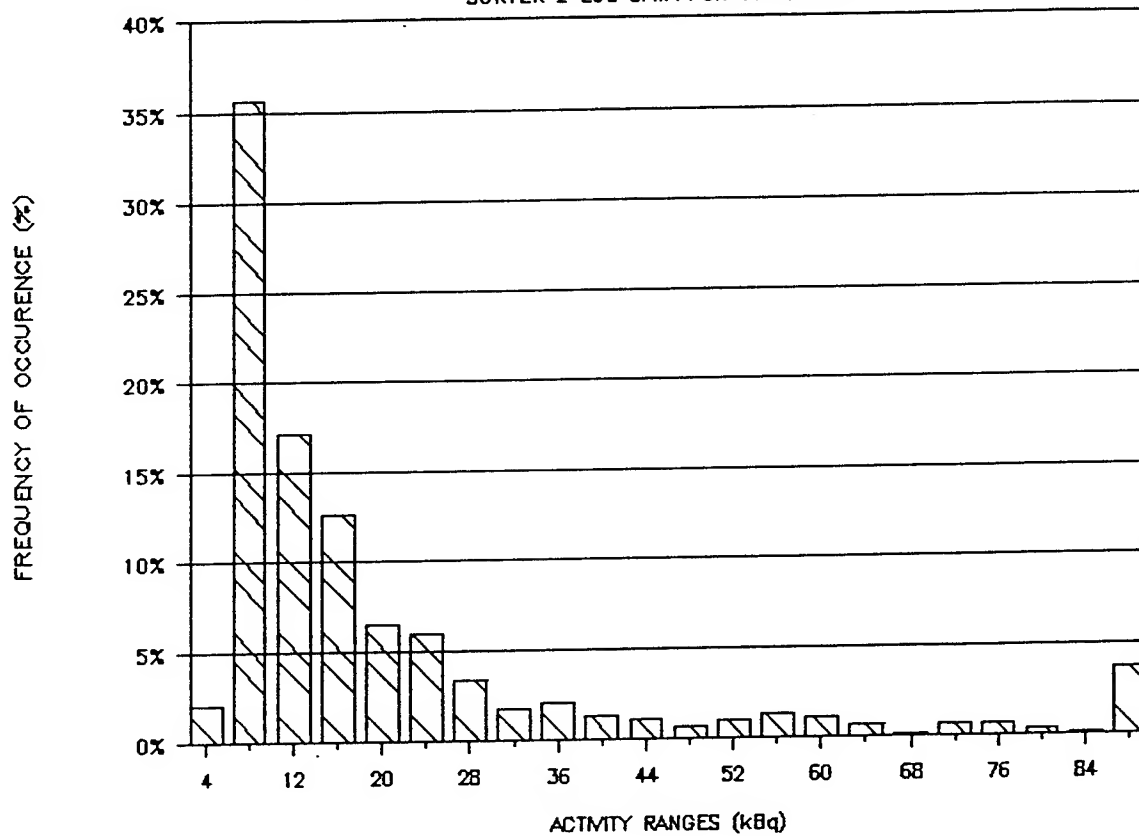
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 17-Oct-92



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 17-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 15-Oct-92

AVERAGE BACKGROUND COUNT RATE 0.74 ± 0.05 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.15 tons	23.1 tons
MAXIMUM/SORT	4 kg	53.6 kg
MINIMUM/SORT	0.7 kg	49.5 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		99.4%
EQUIVALENT SOIL-IN-GROUND	0.12 yd ³	18.3 yd ³ 18.4 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	3,366 kBq
MAXIMUM/SORT	273 kBq
MINIMUM/SORT	3.4 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	1,126 kBq	(960)kBq
MAXIMUM/SORT	166 kBq	7 kBq
MINIMUM/SORT	0 Bq	-18 kBq
SPECIFIC ACTIVITY	7,483 Bq/kg	(42)Bq/kg

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	02:42 PM	
PLANT STARTUP TIME		7.71 hr
PROCESSING END	05:06 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.39 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		2.40 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		2.41 hr
TOTAL SYSTEM PAUSE TIME		0.00 hr
TOTAL DOWNTIME (MAX-ACTUAL)		-0.00 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		24.0%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	590
NONPROCESS RECORDS (Test, calibration, etc)	7

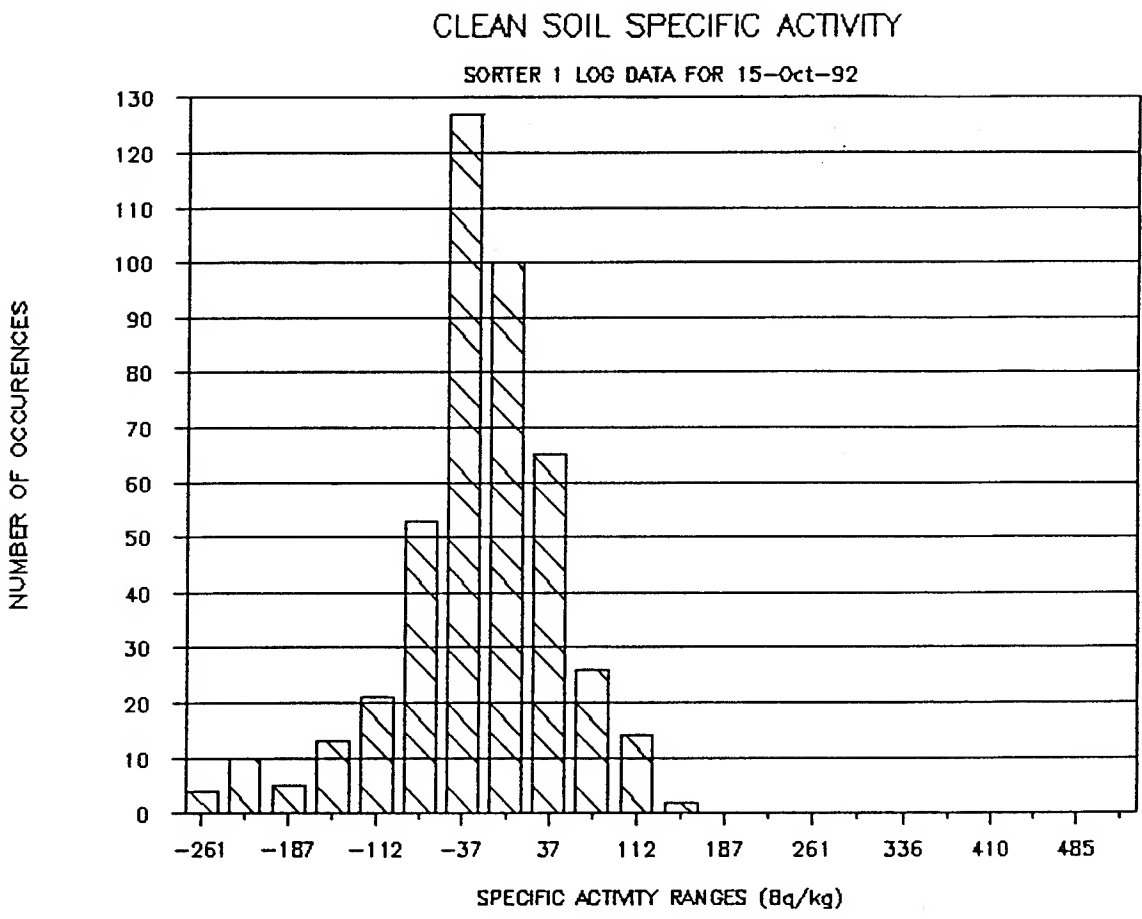
20-SEC PROCESS RECORDS	433
TOTAL SORT	0 MD>0 & MND=0
NO SORT	323 AD=0 & MD=0 & MND>0
SOME SORT	110 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	0
AD=0 & MD	0
AD<0 & MD	0

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 4,330
 2-SEC RECORDS WITH SORTS 157 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 41 83.7%
 3 DETECTORS 8 16.3%
 4 DETECTORS 0 0.0%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 49
 NET 2-SEC RECORDS WITH SORTS 108
 2-SEC PERIODS WITH NO SORTS 4,222
 AVG TIME BETWEEN 2-SEC SORTS 80.2 sec

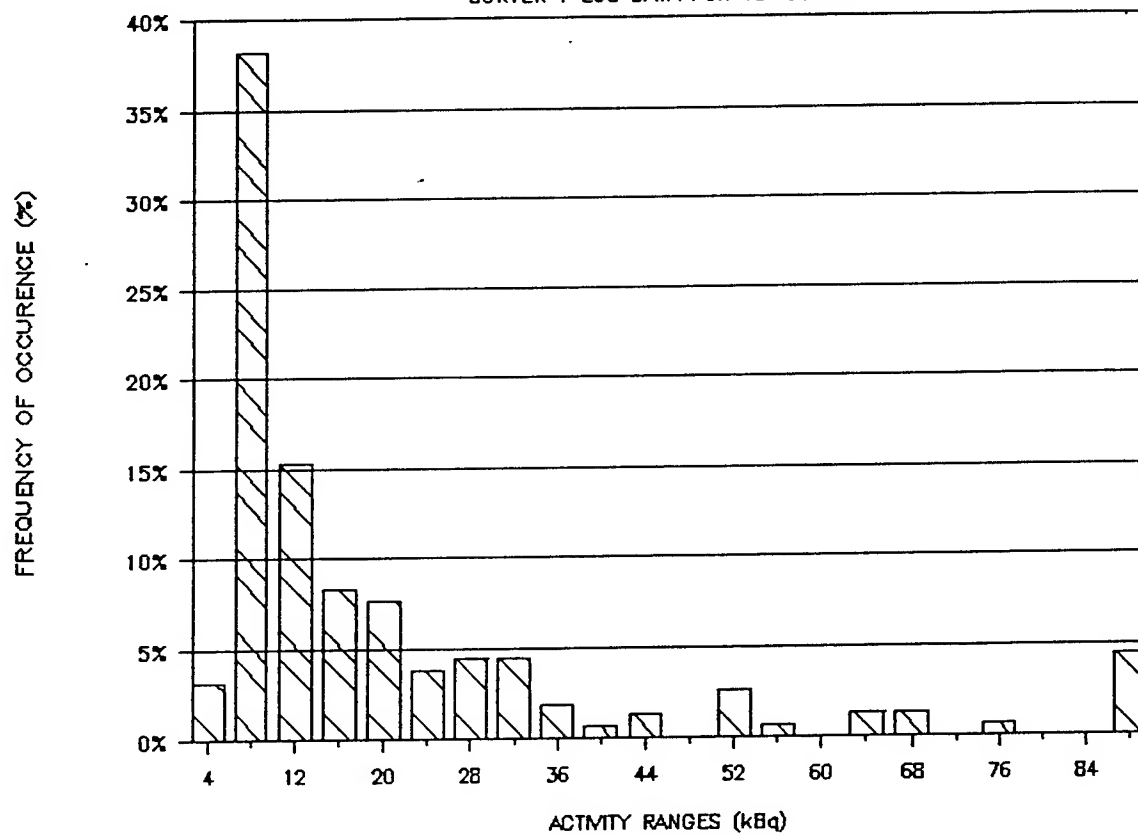
1-GATE SORTS	78	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	2	2.6%	-14000	4	-261	4000	5	3.2%
2	8	10.3%	-12000	10	-224	8000	60	38.2%
3	13	16.7%	-10000	5	-187	12000	24	15.3%
4	18	23.1%	-8000	13	-149	16000	13	8.3%
5	15	19.2%	-6000	21	-112	20000	12	7.6%
6	11	14.1%	-4000	53	-75	24000	6	3.8%
7	8	10.3%	-2000	127	-37	28000	7	4.5%
8	3	3.8%	0	100	0	32000	7	4.5%
TOTAL	78		2000	65	37	36000	3	1.9%
			4000	26	75	40000	1	0.6%
2-GATE SORTS	79	6000	14	112	44000	2	1.3%	44
DETECTO	SORTS	FREQ%	8000	2	149	48000	0	0.0%
8			10000	0	187	52000	4	2.5%
9	8	10.1%	12000	0	224	56000	1	0.6%
10	12	15.2%	14000	0	261	60000	0	0.0%
11	14	17.7%	16000	0	299	64000	2	1.3%
12	18	22.8%	18000	0	336	68000	2	1.3%
13	13	16.5%	20000	0	373	72000	0	0.0%
14	8	10.1%	22000	0	410	76000	1	0.6%
15	6	7.6%	24000	0	448	80000	0	0.0%
TOTAL	79		26000	0	485	84000	0	0.0%
			>28000	0	0	>84000	7	4.5%
			TOTAL	440		TOTAL	157	
HPE	153		GATE1	157				
MPE	72		GATE2	79				
DISE	0							

REC CODE EXPLANATION



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 15-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 15-Oct-92

AVERAGE BACKGROUND COUNT RATE 0.78 ± 0.05 c/sec

SORTER SOIL DENSITY 1.15 tons/m³GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.17 tons	23.3 tons
MAXIMUM/SORT	6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	47.5 kg

		99.3%
WEIGHT RECOVERY OR VOLUME RECOVERY		
EQUIVALENT SOIL-IN-GROUND	0.13 yd ³	18.5 yd ³ 18.6 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	4,704 kBq
MAXIMUM/SORT	318 kBq
MINIMUM/SORT	3.3 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

	1,639 kBq	595 kBq
MAXIMUM/SORT	183 kBq	12 kBq
MINIMUM/SORT	0 Bq	-9 kBq
SPECIFIC ACTIVITY	9,763 Bq/kg	26 Bq/kg

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	02:42 PM	
PLANT STARTUP TIME		7.71 hr
PROCESSING END	05:08 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.37 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		2.43 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		2.43 hr
TOTAL SYSTEM PAUSE TIME		0.00 hr
TOTAL DOWNTIME (MAX-ACTUAL)		-0.01 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		24.3%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 604

NONPROCESS RECORDS (Test, calibration, etc) 3

20-SEC PROCESS RECORDS

TOTAL SORT	438
NO SORT	0 MD>0 & MND=0
SOME SORT	321 AD=0 & MD=0 & MND>0
UNEXPLAINED RECORDS	117 AD>0&0<MD<MNDmax&MND<MNDmax
0<AD<1kBq & MD>0	0
AD=0 & MD	0
AD<0 & MD	0

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 4,380
 2-SEC RECORDS WITH SORTS 166 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	43	84.3%
3 DETECTORS	8	15.7%
4 DETECTORS	0	0.0%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	51	

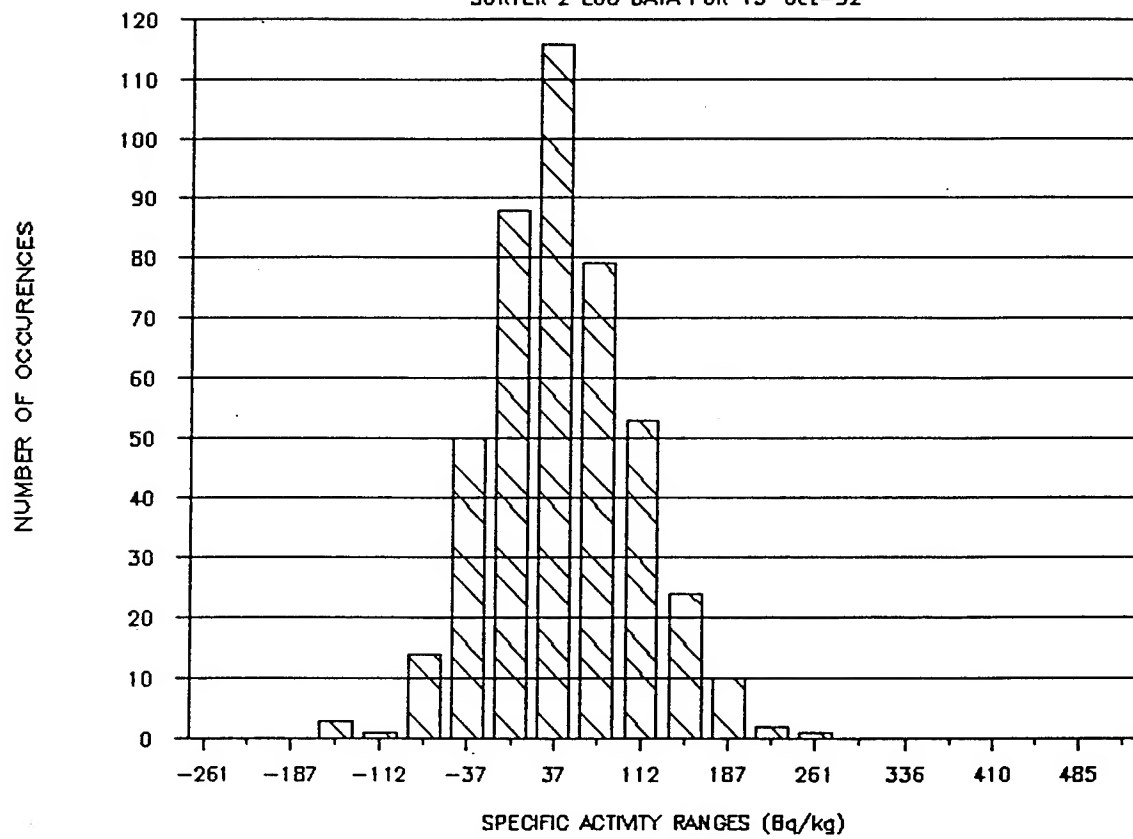
NET 2-SEC RECORDS WITH SORTS 115
 2-SEC PERIODS WITH NO SORTS 4,265
 AVG TIME BETWEEN 2-SEC SORTS 76.2 sec

1-GATE SORTS	85	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	5	5.9%	-14000	0	-261	4000	3 1.8%
2	15	17.6%	-12000	0	-224	8000	57 34.3%
3	14	16.5%	-10000	0	-187	12000	31 18.7%
4	13	15.3%	-8000	3	-149	16000	15 9.0%
5	13	15.3%	-6000	1	-112	20000	9 5.4%
6	12	14.1%	-4000	14	-75	24000	12 7.2%
7	12	14.1%	-2000	50	-37	28000	6 3.6%
8	1	1.2%	0	88	0	32000	6 3.6%
TOTAL	85		2000	116	37	36000	0 0.0%
			4000	79	75	40000	0 0.0%
2-GATE SORTS	81	6000	53	112	44000	0 0.0%	44
DETECTO	SORTS	FREQ%	8000	24	149	48000	0 0.0%
8			10000	10	187	52000	4 2.4%
9	12	14.8%	12000	2	224	56000	3 1.8%
10	12	14.8%	14000	1	261	60000	3 1.8%
11	15	18.5%	16000	0	299	64000	0 0.0%
12	11	13.6%	18000	0	336	68000	1 0.6%
13	14	17.3%	20000	0	373	72000	1 0.6%
14	14	17.3%	22000	0	410	76000	0 0.0%
15	3	3.7%	24000	0	448	80000	2 1.2%
TOTAL	81		26000	0	485	84000	0 0.0%
			>28000	0	0	>84000	13 7.8%
			TOTAL	441		TOTAL	166
HPE	157		GATE1	166			
MPE	94		GATE2	81			
DISE	0						

REC CODE EXPLANATION

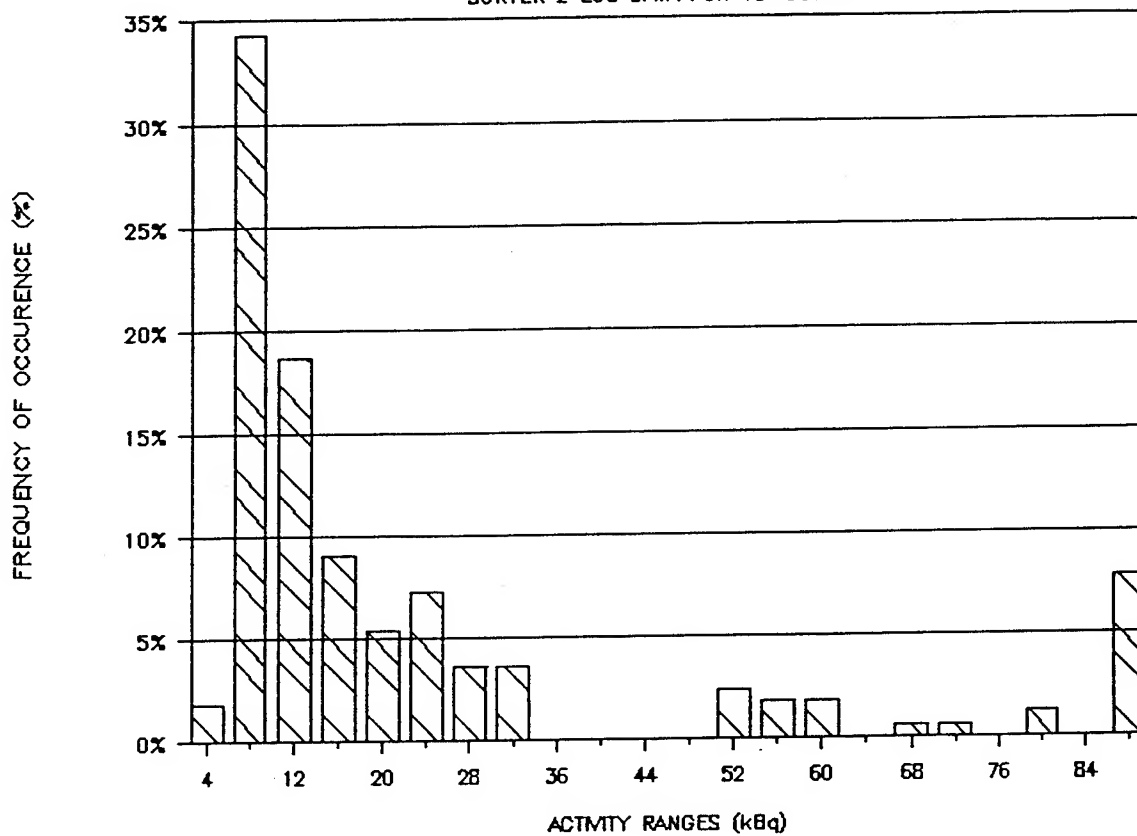
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 15-Oct-92



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 15-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 07-Oct-92

AVERAGE BACKGROUND COUNT RATE 0.78 ± 0.05 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN	
MASS TOTAL	0.07 tons	13.7 tons	
MAXIMUM/SORT	2.7 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	50.9 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.5%
EQUIVALENT SOIL-IN-GROUND	0.05 yd ³	10.9 yd ³	10.9 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	1,035 kBq
MAXIMUM/SORT	127 kBq
MINIMUM/SORT	3.7 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY

	385 kBq	522 kBq
MAXIMUM/SORT	77 kBq	19 kBq
MINIMUM/SORT	0 Bq	-5 kBq
SPECIFIC ACTIVITY	5,635 Bq/kg	38 Bq/kg

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	07:24 AM	
PLANT STARTUP TIME		0.42 hr
PROCESSING END	08:50 AM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		8.67 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		1.42 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		1.43 hr
TOTAL SYSTEM PAUSE TIME		0.00 hr
TOTAL DOWNTIME (MAX-ACTUAL)		-0.01 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		14.3%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 250

NONPROCESS RECORDS (Test, calibration, etc) 10

20-SEC PROCESS RECORDS

257

TOTAL SORT	0 MD>0 & MND=0
NO SORT	193 AD=0 & MD=0 & MND>0
SOME SORT	64 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	0
AD=0 & MD	0
AD<0 & MD	0

JA SOIL CLEANUP PLANT LOG SUMMARY

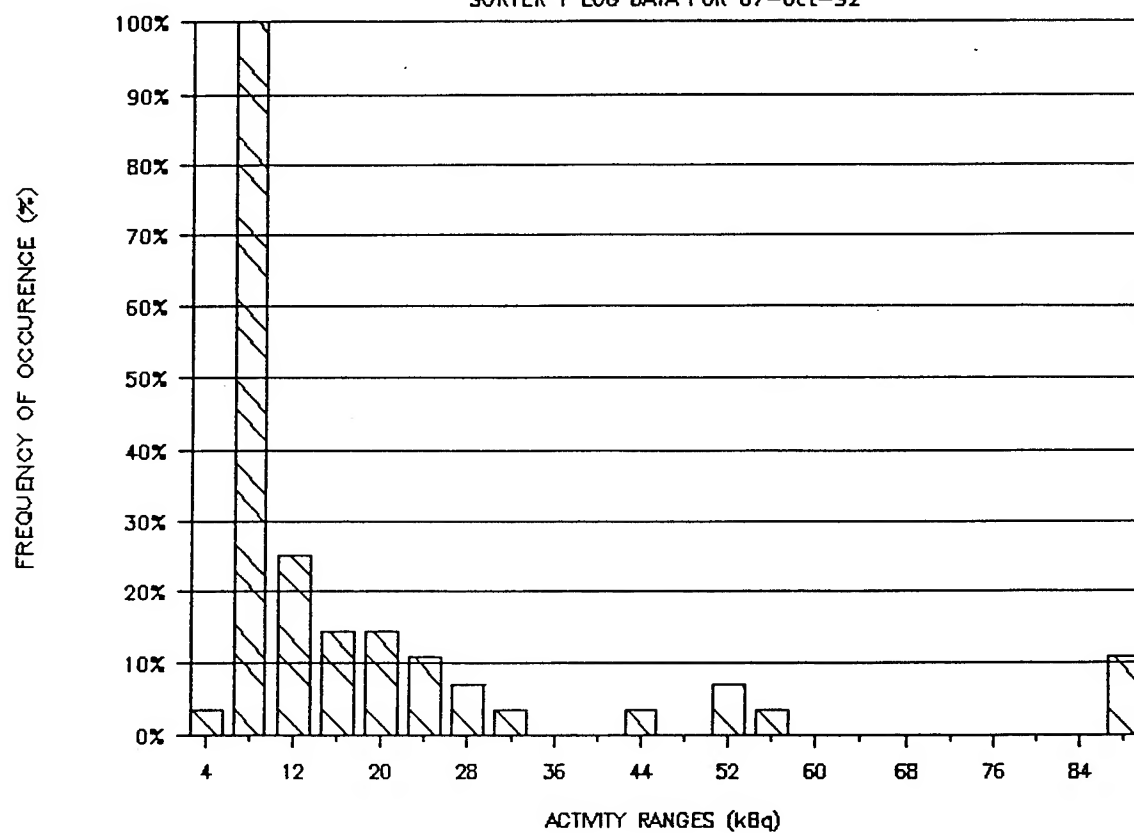
2-SEC COUNT PERIODS 2,570
 2-SEC RECORDS WITH SORTS 57 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 14 87.5%
 3 DETECTORS 2 12.5%
 4 DETECTORS 0 0.0%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 16
 NET 2-SEC RECORDS WITH SORTS 41
 2-SEC PERIODS WITH NO SORTS 2,529
 AVG TIME BETWEEN 2-SEC SORTS 125.4 sec

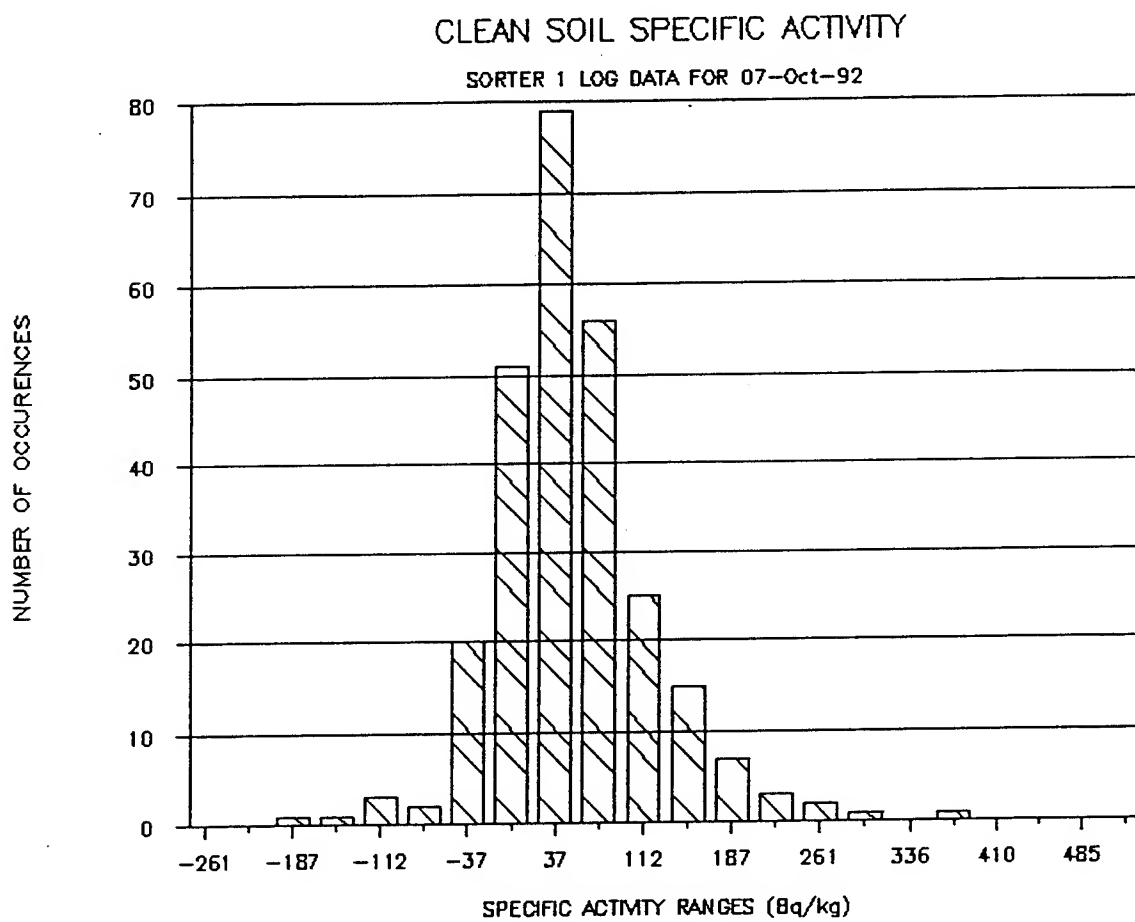
1-GATE SORTS		32	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT		FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)			(kBq)
1	1	3.8%	-14000	0	-261	4000	1	3.6%		4
2	5	19.2%	-12000	0	-224	8000	28	100.0%		8
3	3	11.5%	-10000	1	-187	12000	7	25.0%		12
4	3	11.5%	-8000	1	-149	16000	4	14.3%		16
5	9	34.6%	-6000	3	-112	20000	4	14.3%		20
6	9	34.6%	-4000	2	-75	24000	3	10.7%		24
7	2	7.7%	-2000	20	-37	28000	2	7.1%		28
8	0	0.0%	0	51	0	32000	1	3.6%		32
TOTAL	26		2000	79	37	36000	0	0.0%		36
			4000	56	75	40000	0	0.0%		40
			6000	25	112	44000	1	3.6%		44
2-GATE SORTS		25	8000	15	149	48000	0	0.0%		48
8			10000	7	187	52000	2	7.1%		52
9	2	8.0%	12000	3	224	56000	1	3.6%		56
10	4	16.0%	14000	2	261	60000	0	0.0%		60
11	3	12.0%	16000	1	299	64000	0	0.0%		64
12	3	12.0%	18000	0	336	68000	0	0.0%		68
13	9	36.0%	20000	1	373	72000	0	0.0%		72
14	4	16.0%	22000	0	410	76000	0	0.0%		76
15	0	0.0%	24000	0	448	80000	0	0.0%		80
TOTAL	25		26000	0	485	84000	0	0.0%		84
			>28000	0	0	>84000	3	10.7%		>84
			TOTAL	267		TOTAL	28			
HPE		27		GATE1	57					
MPE		45		GATE2	25					
DISE		0								

NOTE: REC code 1 = Source check; 2 = Empty belt; 3 = Test

JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 07-Oct-92





JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 07-Oct-92

AVERAGE BACKGROUND COUNT RATE 0.79 ± 0.03 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN	
MASS TOTAL	0.09 tons	14.1 tons	
MAXIMUM/SORT	2.7 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	50.9 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.3%
EQUIVALENT SOIL-IN-GROUND	0.07 yd ³	11.1 yd ³	11.2 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	844 kBq		
MAXIMUM/SORT	67 kBq		
MINIMUM/SORT	4.3 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	384 kBq	1,082 kBq	
MAXIMUM/SORT	51 kBq	17 kBq	
MINIMUM/SORT	0 Bq	-5 kBq	
SPECIFIC ACTIVITY	4,168 Bq/kg	77 Bq/kg	

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	07:24 AM	
PLANT STARTUP TIME		0.42 hr
PROCESSING END	08:52 AM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		8.63 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		1.46 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		1.47 hr
TOTAL SYSTEM PAUSE TIME		0.00 hr
TOTAL DOWNTIME (MAX-ACTUAL)		-0.01 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		14.7%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 248

NONPROCESS RECORDS (Test, calibration, etc) 3

20-SEC PROCESS RECORDS

TOTAL SORT	0 MD>0 & MND=0
NO SORT	182 AD=0 & MD=0 & MND>0
SOME SORT	82 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	0
AD=0 & MD	0
AD<0 & MD	0

JA SOIL CLEANUP PLANT LOG SUMMARY

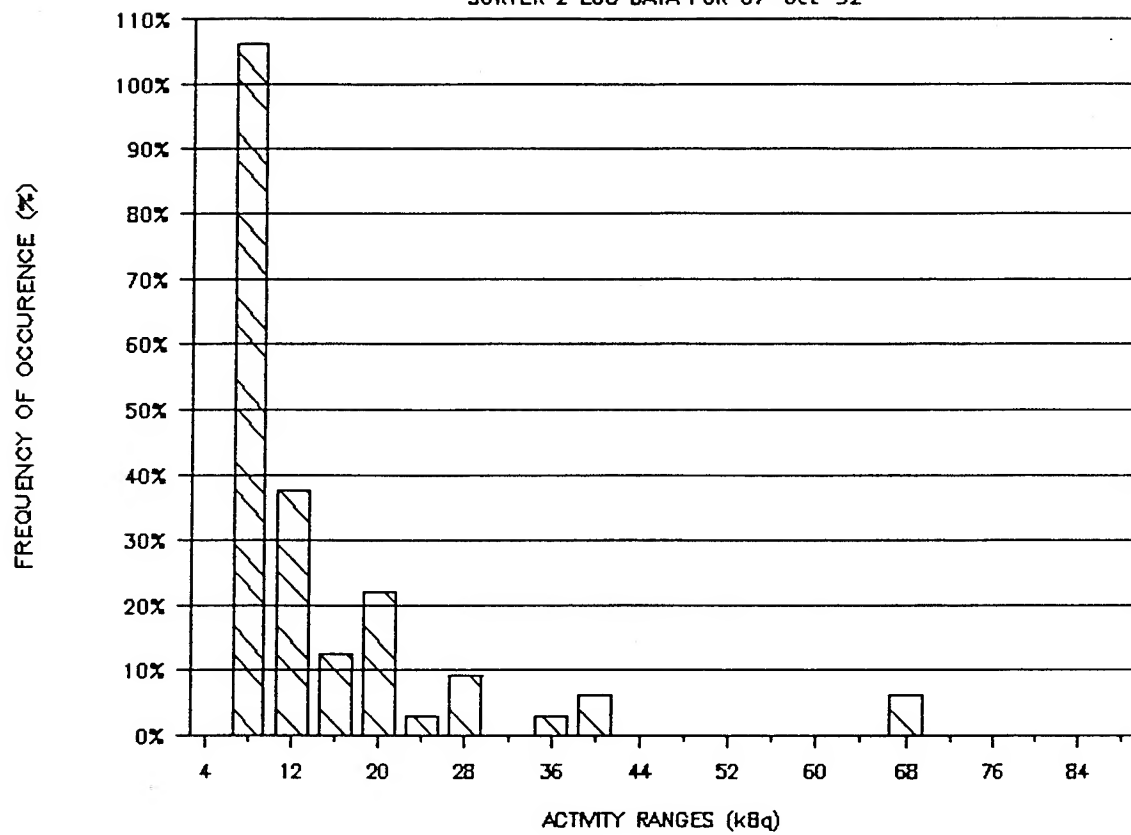
2-SEC COUNT PERIODS 2,640
 2-SEC RECORDS WITH SORTS 66 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 16 76.2%
 3 DETECTORS 4 19.0%
 4 DETECTORS 1 4.8%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 21
 NET 2-SEC RECORDS WITH SORTS 45
 2-SEC PERIODS WITH NO SORTS 2,595
 AVG TIME BETWEEN 2-SEC SORTS 117.3 sec

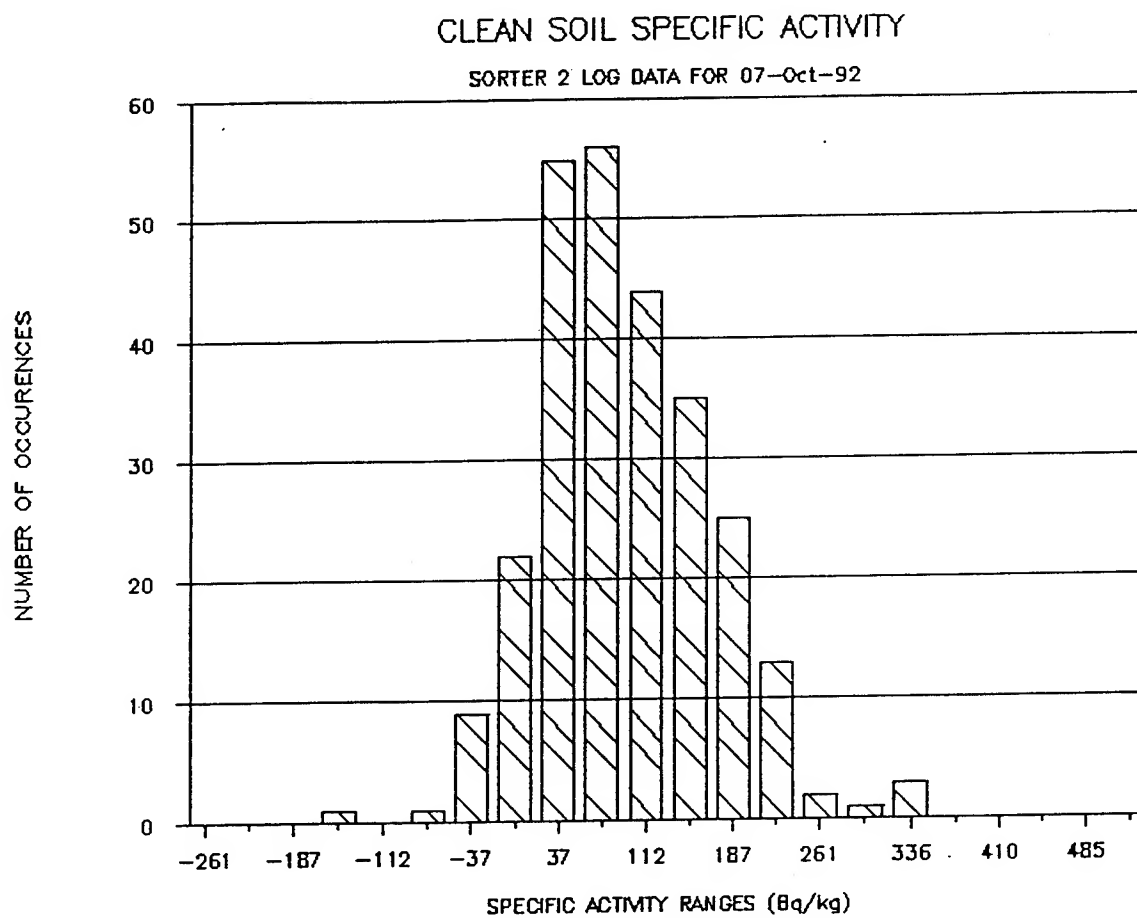
1-GATE SORTS		32	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	1	4.0%	-14000	0	-261	4000	0	0.0%	4
2	6	24.0%	-12000	0	-224	8000	34	106.3%	8
3	2	8.0%	-10000	0	-187	12000	12	37.5%	12
4	5	20.0%	-8000	1	-149	16000	4	12.5%	16
5	9	36.0%	-6000	0	-112	20000	7	21.9%	20
6	5	20.0%	-4000	1	-75	24000	1	3.1%	24
7	3	12.0%	-2000	9	-37	28000	3	9.4%	28
8	1	4.0%	0	22	0	32000	0	0.0%	32
TOTAL	25		2000	55	37	36000	1	3.1%	36
			4000	56	75	40000	2	6.3%	40
			6000	44	112	44000	0	0.0%	44
2-GATE SORTS		34	8000	35	149	48000	0	0.0%	48
DETECTO	SORTS	FREQ%	10000	25	187	52000	0	0.0%	52
8			12000	13	224	56000	0	0.0%	56
9	5	14.7%	14000	2	261	60000	0	0.0%	60
10	6	17.6%	16000	1	299	64000	0	0.0%	64
11	5	14.7%	18000	3	336	68000	2	6.3%	68
12	3	8.8%	20000	0	373	72000	0	0.0%	72
13	9	26.5%	22000	0	410	76000	0	0.0%	76
14	4	11.8%	24000	0	448	80000	0	0.0%	80
15	2	5.9%	26000	0	485	84000	0	0.0%	84
TOTAL	34		>28000	0	0	>84000	0	0.0%	>84
			TOTAL	267		TOTAL	32		
HPE	32		GATE1	66					
MPE	58		GATE2	34					
DISE	0								

NOTE: REC code 1 = Source check; 2 = Empty belt; 3 = Test

JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 07-Oct-92





JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 06-Oct-92

AVERAGE BACKGROUND COUNT RATE 0.78 ± 0.06 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN	
MASS TOTAL	0.29 tons	46.9 tons	
MAXIMUM/SORT	5.4 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	48.2 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.4%
EQUIVALENT SOIL-IN-GROUND	0.23 yd ³	37.2 yd ³	37.4 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	5,347 kBq		
MAXIMUM/SORT	444 kBq		
MINIMUM/SORT	3.2 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY			
MAXIMUM/SORT	1,897 kBq	2,441 kBq	
MINIMUM/SORT	244 kBq	18 kBq	
MINIMUM/SORT	0 Bq	-9 kBq	
SPECIFIC ACTIVITY	6,549 Bq/kg	52 Bq/kg	

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	10:56 AM	
PLANT STARTUP TIME		3.95 hr
PROCESSING END	05:02 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.47 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		6.09 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		4.89 hr
TOTAL SYSTEM PAUSE TIME		0.00 hr
TOTAL DOWNTIME (MAX-ACTUAL)		1.20 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		48.8%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 888
 NONPROCESS RECORDS (Test, calibration, etc) 9

20-SEC PROCESS RECORDS	880
TOTAL SORT	0 MD>0 & MND=0
NO SORT	635 AD=0 & MD=0 & MND>0
SOME SORT	245 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	0
AD=0 & MD	0
AD<0 & MD	0

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 8,800
 2-SEC RECORDS WITH SORTS 253 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	55	82.1%
3 DETECTORS	10	14.9%
4 DETECTORS	2	3.0%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	67	

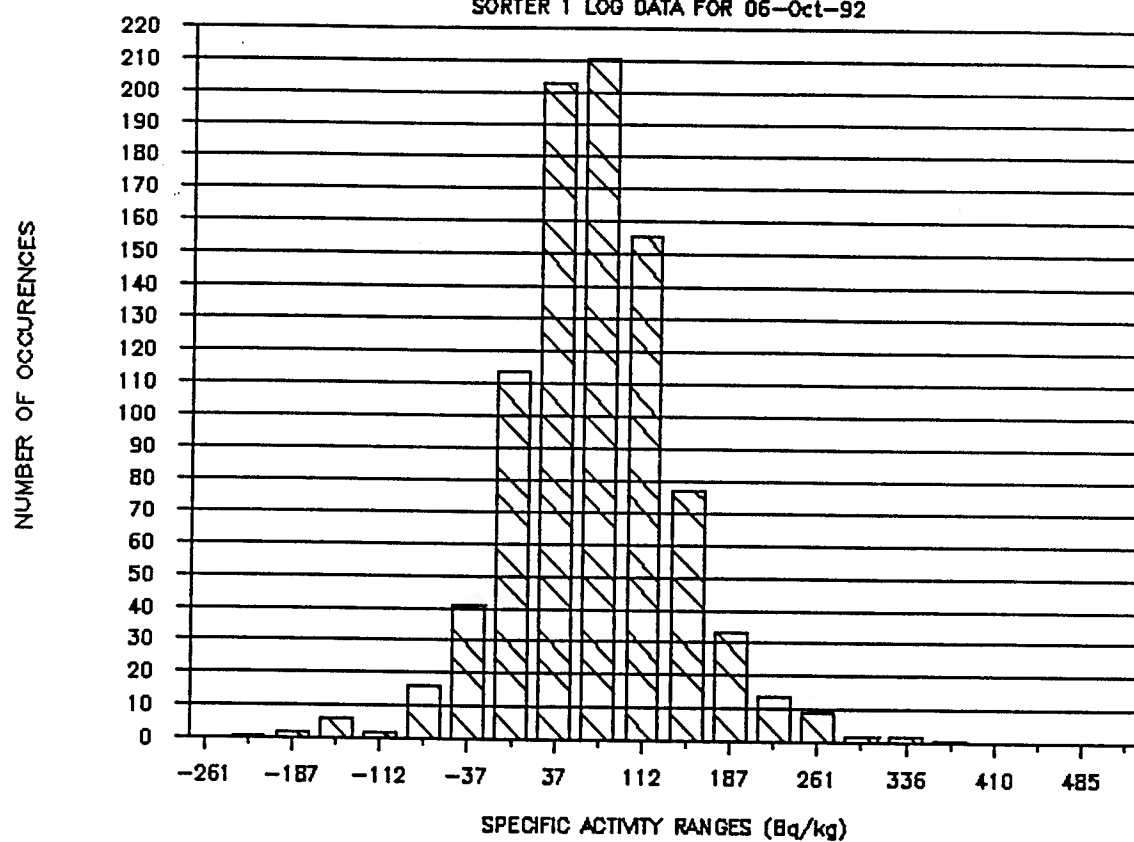
NET 2-SEC RECORDS WITH SORTS 186
 2-SEC PERIODS WITH NO SORTS 8,614
 AVG TIME BETWEEN 2-SEC SORTS 94.6 sec

1-GATE SORTS	134	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	2	1.8%	-14000	0	-261	4000	3	2.0%
2	20	17.9%	-12000	1	-224	8000	102	68.9%
3	16	14.3%	-10000	2	-187	12000	51	34.5%
4	20	17.9%	-8000	6	-149	16000	33	22.3%
5	27	24.1%	-6000	2	-112	20000	18	12.2%
6	31	27.7%	-4000	16	-75	24000	6	4.1%
7	18	16.1%	-2000	41	-37	28000	2	1.4%
8	0	0.0%	0	114	0	32000	6	4.1%
TOTAL	112		2000	203	37	36000	1	0.7%
			4000	211	75	40000	3	2.0%
2-GATE SORTS	119	6000	155	112	44000	2	1.4%	44
DETECTO	SORTS	FREQ%	8000	77	149	48000	4	2.7%
8			10000	33	187	52000	3	2.0%
9	7	5.9%	12000	14	224	56000	1	0.7%
10	16	13.4%	14000	9	261	60000	0	0.0%
11	17	14.3%	16000	2	299	64000	0	0.0%
12	20	16.8%	18000	2	336	68000	1	0.7%
13	32	26.9%	20000	1	373	72000	2	1.4%
14	20	16.8%	22000	0	410	76000	2	1.4%
15	7	5.9%	24000	0	448	80000	1	0.7%
TOTAL	119		26000	0	485	84000	2	1.4%
			>28000	0	0	>84000	10	6.8%
			TOTAL	889		TOTAL	148	
HPE	117		GATE1	253				
MPE	159		GATE2	119				
DISE	0							

NOTE: REC code 1 = Source check; 2 = Empty belt; 3 = Test

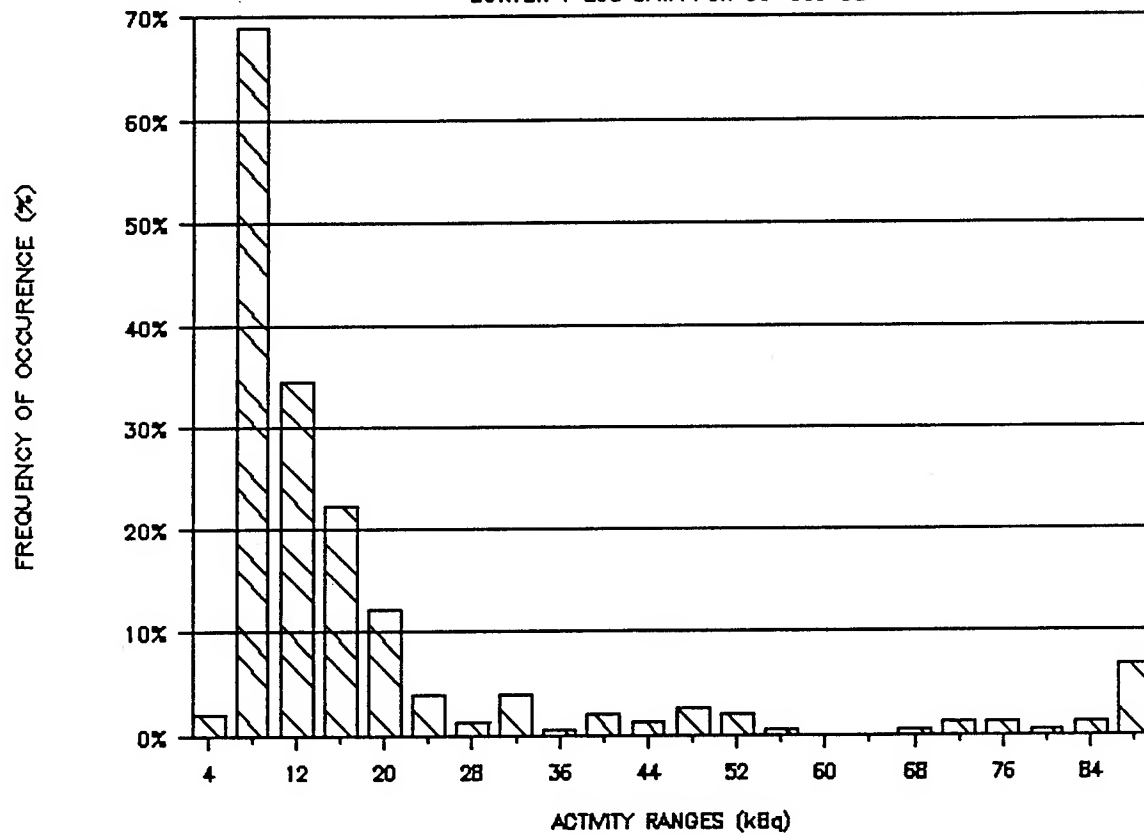
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 06-Oct-92



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 06-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 06-Oct-92

AVERAGE BACKGROUND COUNT RATE 0.78 ± 0.05 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.38 tons	47.0 tons
MAXIMUM/SORT	5.4 kg	53.6 kg
MINIMUM/SORT	0.7 kg	48.2 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		99.2%
EQUIVALENT SOIL-IN-GROUND	0.30 yd ³	37.3 yd ³ 37.6 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	6,617 kBq
MAXIMUM/SORT	508 kBq
MINIMUM/SORT	3.5 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	2,543 kBq	3,180 kBq
MAXIMUM/SORT	311 kBq	19 kBq
MINIMUM/SORT	0 Bq	-6 kBq
SPECIFIC ACTIVITY	6,701 Bq/kg	68 Bq/kg

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	10:56 AM	
PLANT STARTUP TIME		3.95 hr
PROCESSING END	05:03 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.45 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		6.11 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		4.91 hr
TOTAL SYSTEM PAUSE TIME		0.00 hr
TOTAL DOWNTIME (MAX-ACTUAL)		1.20 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		49.1%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	892
NONPROCESS RECORDS (Test, calibration, etc)	8

20-SEC PROCESS RECORDS	884
TOTAL SORT	0 MD>0 & MND=0
NO SORT	582 AD=0 & MD=0 & MND>0
SOME SORT	302 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	1
AD=0 & MD	0
AD<0 & MD	0

JA SOIL CLEANUP PLANT LOG SUMMARY

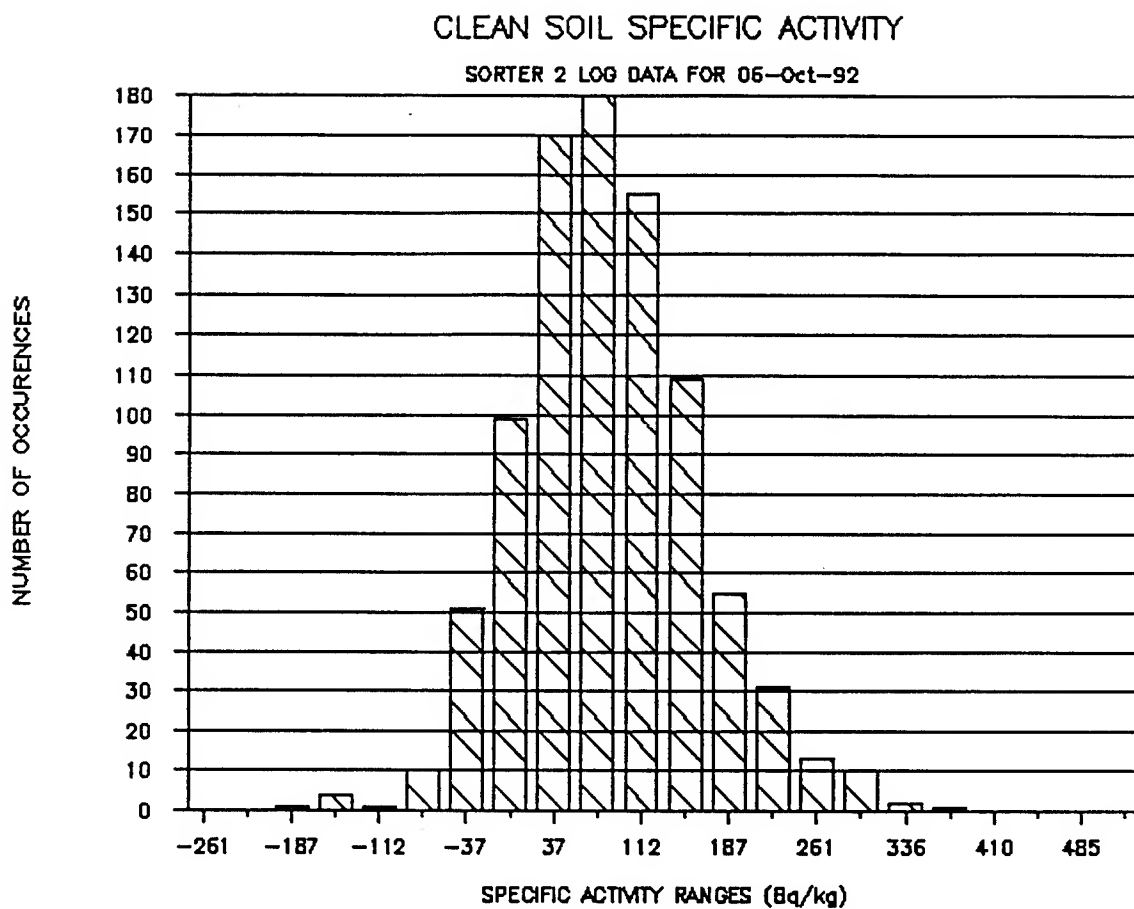
2-SEC COUNT PERIODS 8,840
 2-SEC RECORDS WITH SORTS 309 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	71	78.0%
3 DETECTORS	18	19.8%
4 DETECTORS	2	2.2%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	91	

NET 2-SEC RECORDS WITH SORTS 218
 2-SEC PERIODS WITH NO SORTS 8,622
 AVG TIME BETWEEN 2-SEC SORTS 81.1 sec

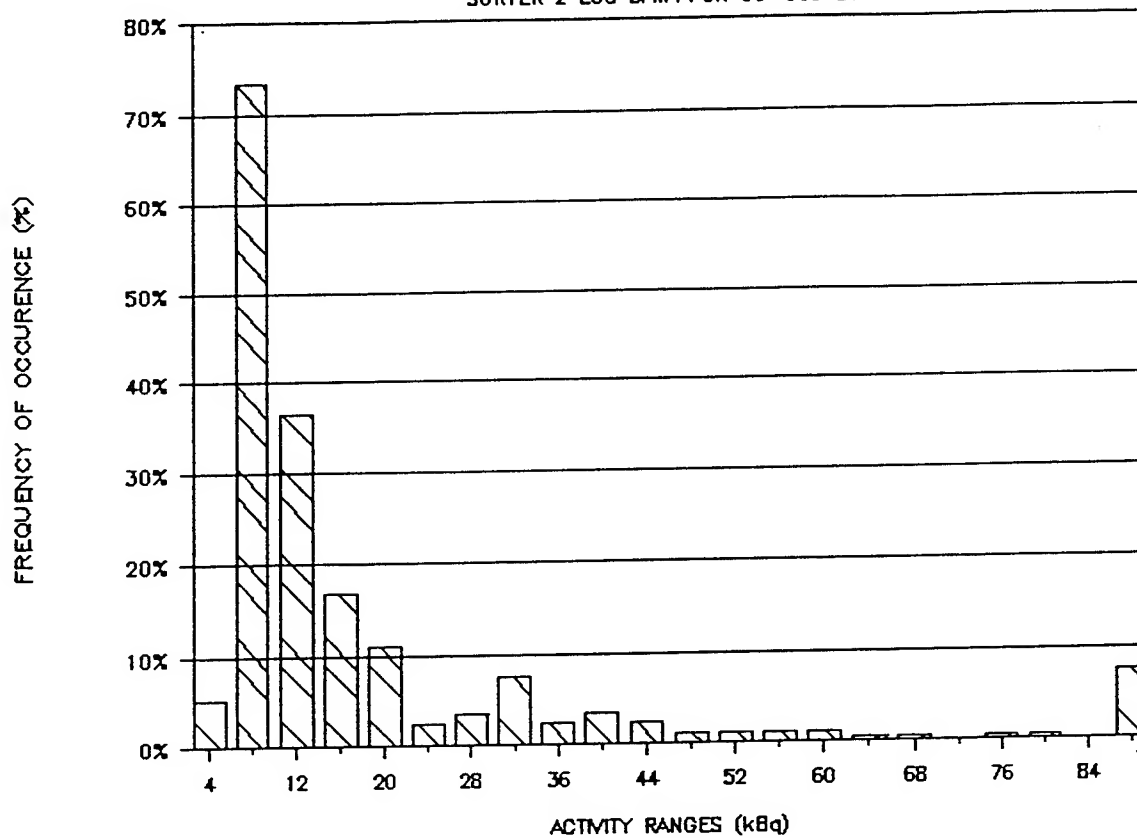
1-GATE SORTS	162	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	10	8.1%	-14000	0	-261	4000	9	5.2%
2	29	23.6%	-12000	0	-224	8000	127	73.4%
3	41	33.3%	-10000	1	-187	12000	63	36.4%
4	29	23.6%	-8000	4	-149	16000	29	16.8%
5	22	17.9%	-6000	1	-112	20000	19	11.0%
6	20	16.3%	-4000	10	-75	24000	4	2.3%
7	9	7.3%	-2000	51	-37	28000	6	3.5%
8	2	1.6%	0	99	0	32000	13	7.5%
TOTAL	123		2000	170	37	36000	4	2.3%
			4000	180	75	40000	6	3.5%
			6000	155	112	44000	4	2.3%
2-GATE SORTS	147		8000	109	149	48000	2	1.2%
DETECTO	SORTS	FREQ%				52000	2	1.2%
8			10000	55	187	56000	2	1.2%
9	20	13.6%	12000	31	224	60000	2	1.2%
10	35	23.8%	14000	13	261	64000	1	0.6%
11	28	19.0%	16000	10	299	68000	1	0.6%
12	20	13.6%	18000	2	336	72000	0	0.0%
13	23	15.6%	20000	1	373	76000	1	0.6%
14	17	11.6%	22000	0	410	80000	1	0.6%
15	4	2.7%	24000	0	448	84000	0	0.0%
TOTAL	147		26000	0	485	88000	13	7.5%
			>28000	0	0	>84000		>84
			TOTAL	892		TOTAL	173	
HPE	146		GATE1	309				
MPE	214		GATE2	147				
DISE	0							

NOTE: REC code 1 = Source check; 2 = Empty belt; 3 = Test



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 06-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 05-Oct-92

AVERAGE BACKGROUND COUNT RATE 0.78 ± 0.05 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN	
MASS TOTAL	0.60 tons	60.0 tons	
MAXIMUM/SORT	6 kg	53.6 kg	
MINIMUM/SORT	0.7 kg	47.5 kg	
WEIGHT RECOVERY OR VOLUME RECOVERY			99.0%
EQUIVALENT SOIL-IN-GROUND	0.48 yd ³	47.5 yd ³	48.0 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	9,234 kBq
MAXIMUM/SORT	303 kBq
MINIMUM/SORT	3.1 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	3,464 kBq	5,172 kBq
MAXIMUM/SORT	199 kBq	18 kBq
MINIMUM/SORT	0 Bq	-6 kBq
SPECIFIC ACTIVITY	5,775 Bq/kg	86 Bq/kg

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	07:36 AM	
PLANT STARTUP TIME		0.61 hr
PROCESSING END	05:05 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.41 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		9.48 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		6.28 hr
TOTAL SYSTEM PAUSE TIME		1.94 hr
TOTAL DOWNTIME (MAX-ACTUAL)		3.20 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		62.7%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	1,223
NONPROCESS RECORDS (Test, calibration, etc)	8

20-SEC PROCESS RECORDS	1,130
TOTAL SORT	0 MD>0 & MND=0
NO SORT	696 AD=0 & MD=0 & MND>0
SOME SORT	434 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	0
AD=0 & MD	0
AD<0 & MD	0

JA SOIL CLEANUP PLANT LOG SUMMARY

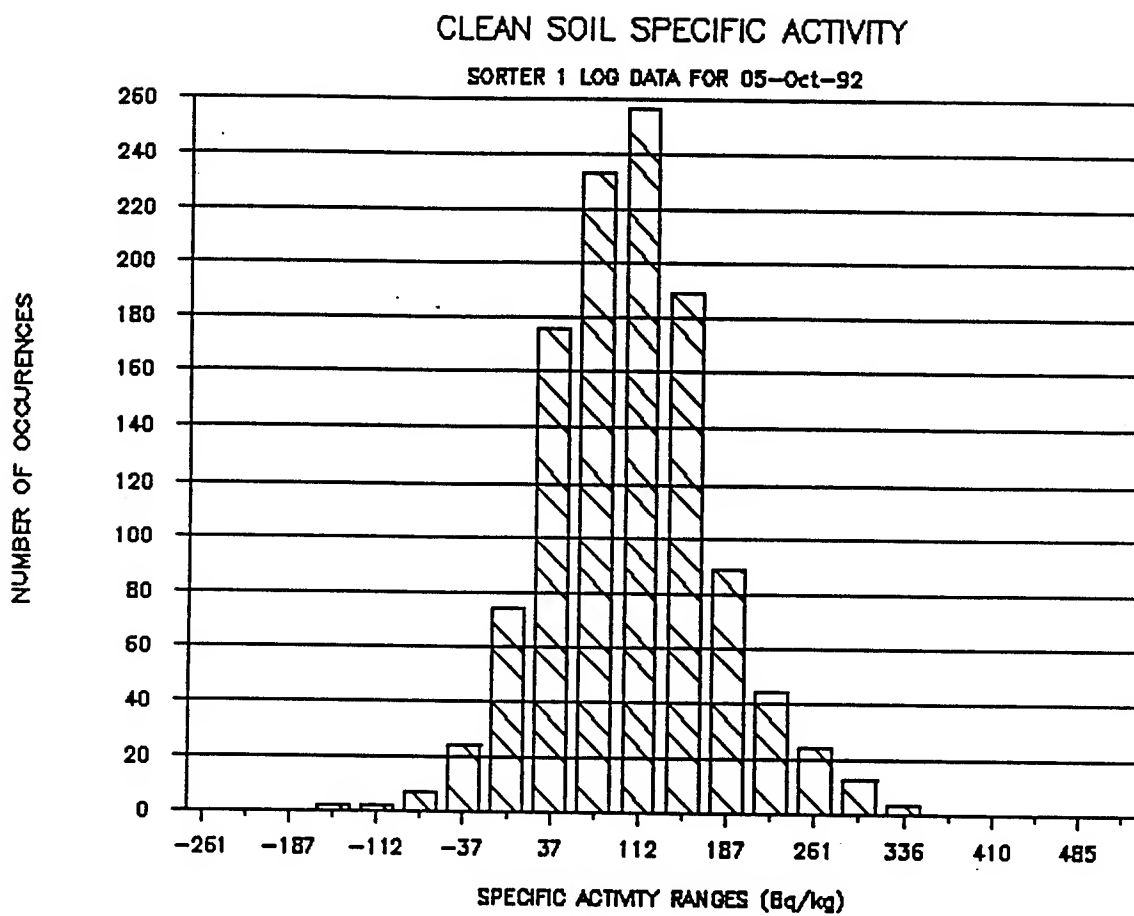
2-SEC COUNT PERIODS 11,300
 2-SEC RECORDS WITH SORTS 527 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	120	83.3%
3 DETECTORS	22	15.3%
4 DETECTORS	2	1.4%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	144	

NET 2-SEC RECORDS WITH SORTS 383
 2-SEC PERIODS WITH NO SORTS 10,917
 AVG TIME BETWEEN 2-SEC SORTS 59.0 sec

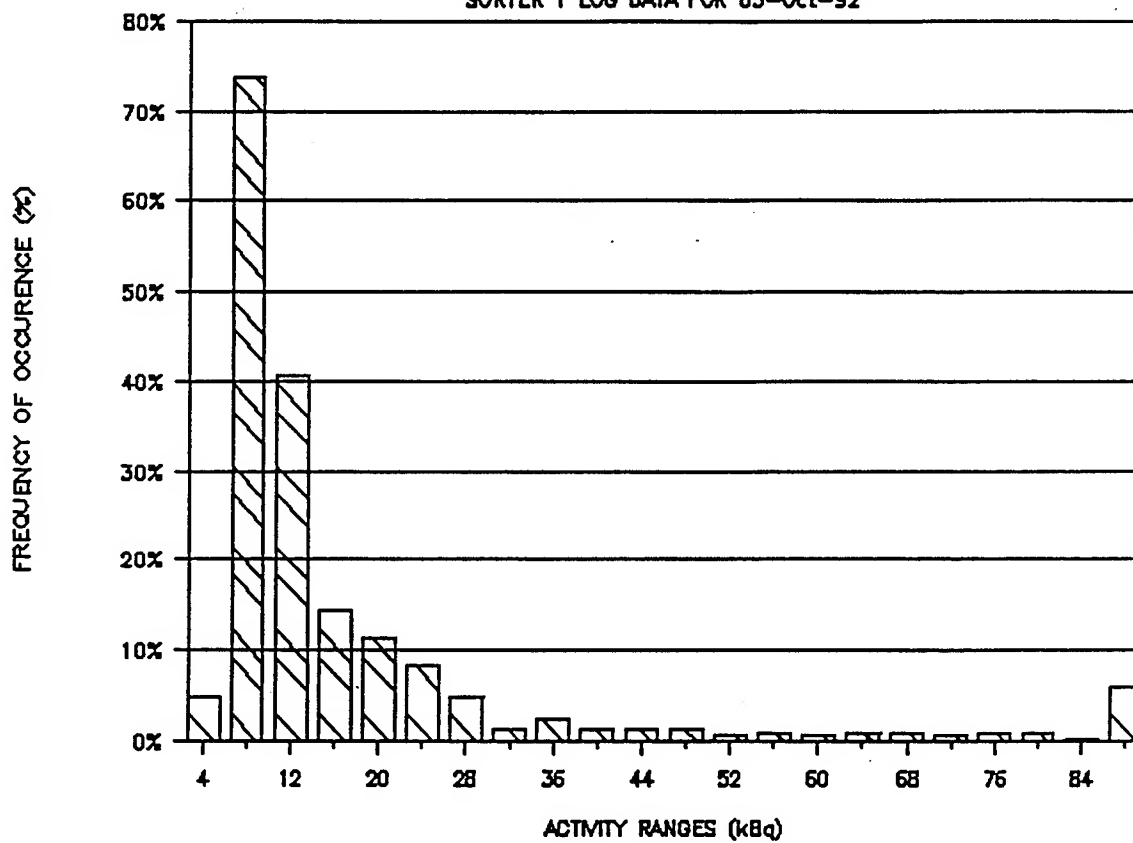
1-GATE SORTS	257	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	10	4.6%	-14000	0	-261	4000	14	4.7%
2	29	13.3%	-12000	0	-224	8000	218	73.9%
3	39	17.9%	-10000	0	-187	12000	120	40.7%
4	48	22.0%	-8000	2	-149	16000	42	14.2%
5	53	24.3%	-6000	2	-112	20000	33	11.2%
6	38	17.4%	-4000	7	-75	24000	24	8.1%
7	30	13.8%	-2000	24	-37	28000	14	4.7%
8	10	4.6%	0	74	0	32000	4	1.4%
TOTAL	218		2000	176	37	36000	7	2.4%
			4000	233	75	40000	4	1.4%
2-GATE SORTS	270	6000	257	112	44000	4	1.4%	44
DETECTO	SORTS	FREQ%	8000	189	149	48000	4	1.4%
8			10000	89	187	52000	2	0.7%
9	21	7.8%	12000	44	224	56000	3	1.0%
10	43	15.9%	14000	24	261	60000	2	0.7%
11	50	18.5%	16000	13	299	64000	3	1.0%
12	51	18.9%	18000	4	336	68000	3	1.0%
13	49	18.1%	20000	0	373	72000	2	0.7%
14	35	13.0%	22000	0	410	76000	3	1.0%
15	21	7.8%	24000	0	448	80000	3	1.0%
TOTAL	270		26000	0	485	84000	1	0.3%
			>28000	0	0	>84000	17	5.8%
			TOTAL	1138		TOTAL	295	
HPE	223		GATE1	527				
MPE	301		GATE2	270				
DISE	0							

NOTE: REC code 1 = Source check; 2 = Empty belt; 3 = Test



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 05-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 05-Oct-92

AVERAGE BACKGROUND COUNT RATE 0.79 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.93 tons	59.1 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	47.5 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		98.5%
EQUIVALENT SOIL-IN-GROUND	0.74 yd ³	46.9 yd ³ 47.6 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	13,832 kBq
MAXIMUM/SORT	769 kBq
MINIMUM/SORT	3.7 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	5,204 kBq	6,390 kBq
MAXIMUM/SORT	420 kBq	20 kBq
MINIMUM/SORT	0 Bq	-11 kBq
SPECIFIC ACTIVITY	5,596 Bq/kg	108 Bq/kg

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	07:59 AM	
PLANT STARTUP TIME		1.00 hr
PROCESSING END	05:03 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.45 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		9.07 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		6.23 hr
TOTAL SYSTEM PAUSE TIME		1.54 hr
TOTAL DOWNTIME (MAX-ACTUAL)		2.84 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		62.2%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	1,771
NONPROCESS RECORDS (Test, calibration, etc)	21

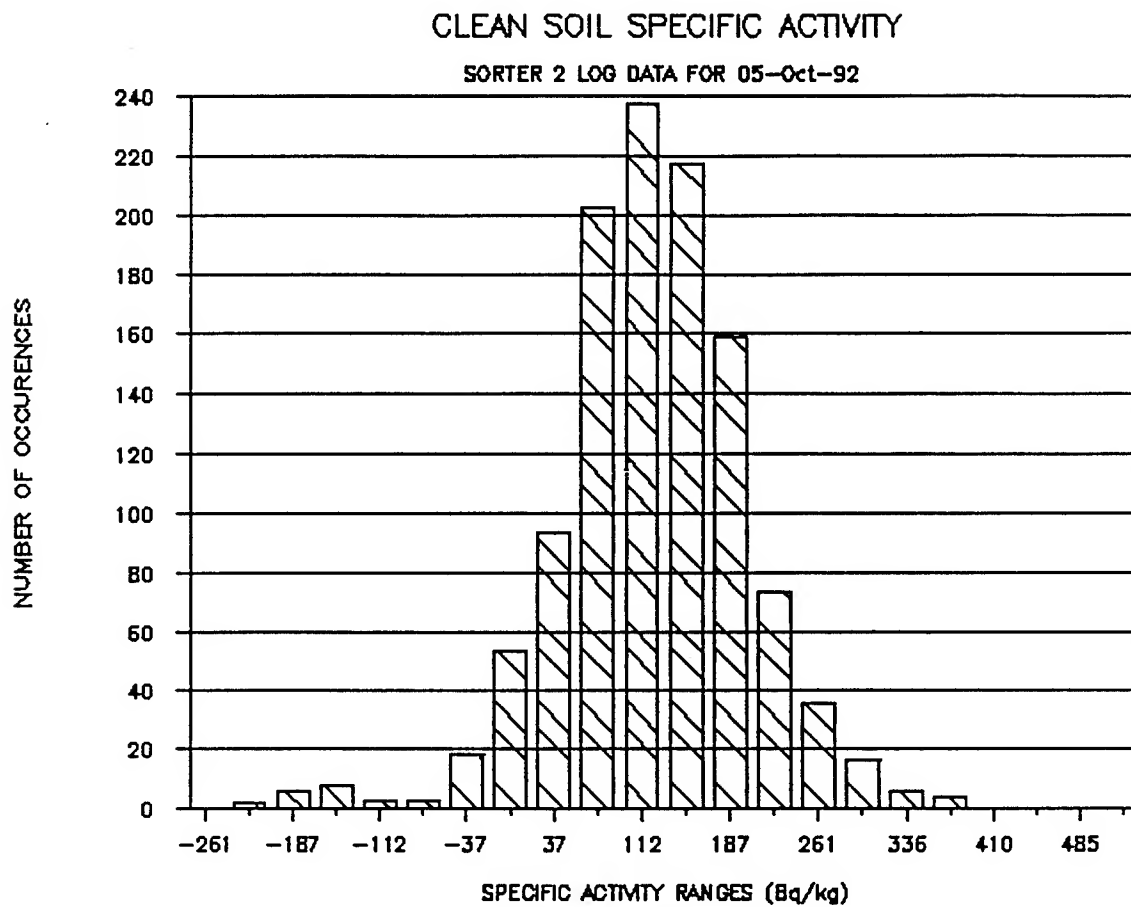
20-SEC PROCESS RECORDS	1,121
TOTAL SORT	4 MD>0 & MND=0
NO SORT	608 AD=0 & MD=0 & MND>0
SOME SORT	509 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	2
AD=0 & MD	1
AD<0 & MD	0

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 11,210
 2-SEC RECORDS WITH SORTS 650 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 159 79.5%
 3 DETECTORS 33 16.5%
 4 DETECTORS 8 4.0%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 200
 NET 2-SEC RECORDS WITH SORTS 450
 2-SEC PERIODS WITH NO SORTS 10,760
 AVG TIME BETWEEN 2-SEC SORTS 49.8 sec

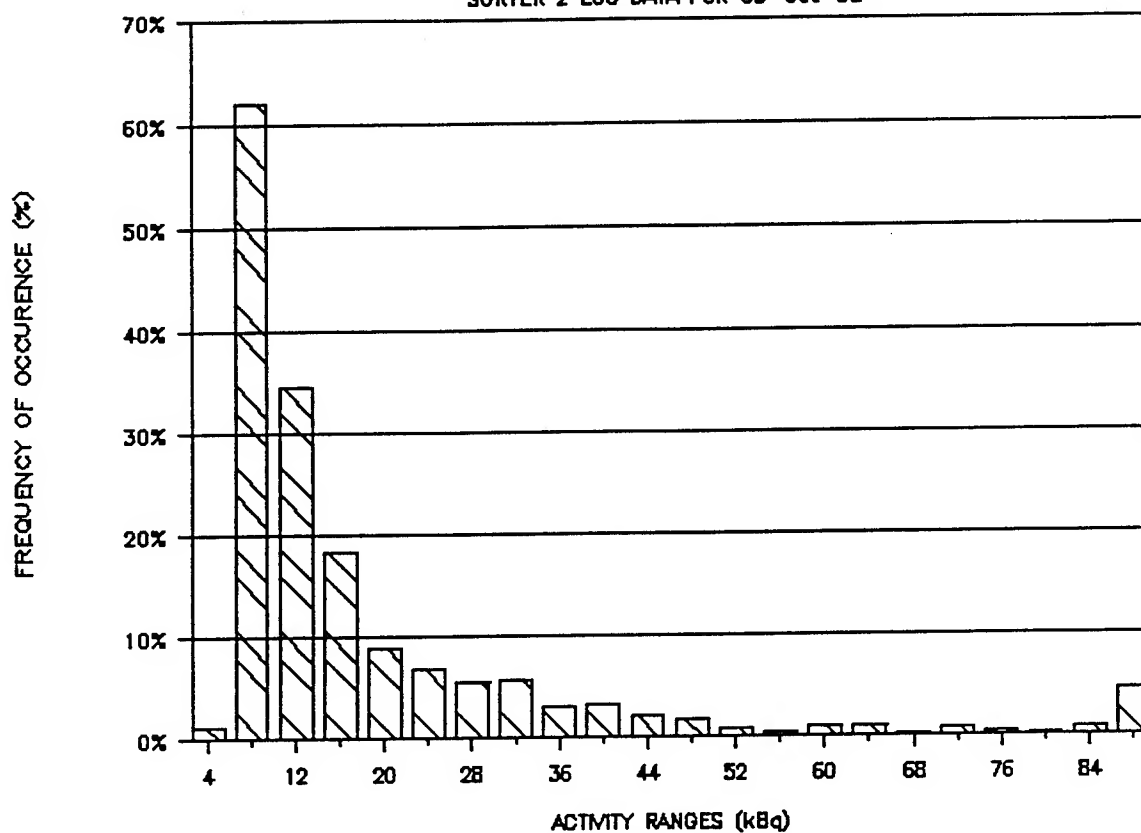
1-GATE SORTS DETECTO	SORTS	329 FREQ%	ACT_ND (Bq)	NUMBER (#)	SPEC_A (Bq/kg)	ACT_P (Bq)	SORT (#)	FREQ%	ACT_P (kBq)
1	14	5.1%	-14000	0	-261	4000	5	1.3%	4
2	41	15.0%	-12000	2	-224	8000	247	62.1%	8
3	70	25.5%	-10000	6	-187	12000	137	34.4%	12
4	71	25.9%	-8000	8	-149	16000	73	18.3%	16
5	50	18.2%	-6000	3	-112	20000	35	8.8%	20
6	49	17.9%	-4000	3	-75	24000	27	6.8%	24
7	28	10.2%	-2000	18	-37	28000	22	5.5%	28
8	6	2.2%	0	54	0	32000	23	5.8%	32
TOTAL	274		2000	94	37	36000	12	3.0%	36
			4000	203	75	40000	13	3.3%	40
2-GATE SORTS		321	6000	238	112	44000	8	2.0%	44
DETECTO	SORTS	FREQ%	8000	218	149	48000	7	1.8%	48
8			10000	159	187	52000	3	0.8%	52
9	36	11.2%	12000	74	224	56000	2	0.5%	56
10	48	15.0%	14000	36	261	60000	4	1.0%	60
11	78	24.3%	16000	16	299	64000	4	1.0%	64
12	53	16.5%	18000	6	336	68000	1	0.3%	68
13	51	15.9%	20000	4	373	72000	3	0.8%	72
14	39	12.1%	22000	0	410	76000	2	0.5%	76
15	16	5.0%	24000	0	448	80000	1	0.3%	80
TOTAL	321		26000	0	485	84000	3	0.8%	84
			>28000	0	0	>84000	18	4.5%	>84
			TOTAL	1142		TOTAL	398		
HPE	273		GATE1	650					
MPE	334		GATE2	321					
DISE	4								

NOTE: REC code 1 = Source check; 2 = Empty belt; 3 = Test



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 05-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 03-Oct-92

AVERAGE BACKGROUND COUNT RATE 0.77 ± 0.07 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.48 tons	45.8 tons
MAXIMUM/SORT	5.4 kg	53.6 kg
MINIMUM/SORT	0.7 kg	48.2 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		99.0%
EQUIVALENT SOIL-IN-GROUND	0.38 yd ³	36.3 yd ³ 36.7 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	8,606 kBq
MAXIMUM/SORT	779 kBq
MINIMUM/SORT	2.7 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	3,037 kBq	5,061 kBq
MAXIMUM/SORT	465 kBq	17 kBq
MINIMUM/SORT	0 Bq	-6 kBq
SPECIFIC ACTIVITY	6,347 Bq/kg	111 Bq/kg

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	07:28 AM	
PLANT STARTUP TIME		0.48 hr
PROCESSING END	04:38 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.87 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		9.16 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		4.79 hr
TOTAL SYSTEM PAUSE TIME		0.08 hr
TOTAL DOWNTIME (MAX-ACTUAL)		4.36 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		47.9%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	955
NONPROCESS RECORDS (Test, calibration, etc)	8

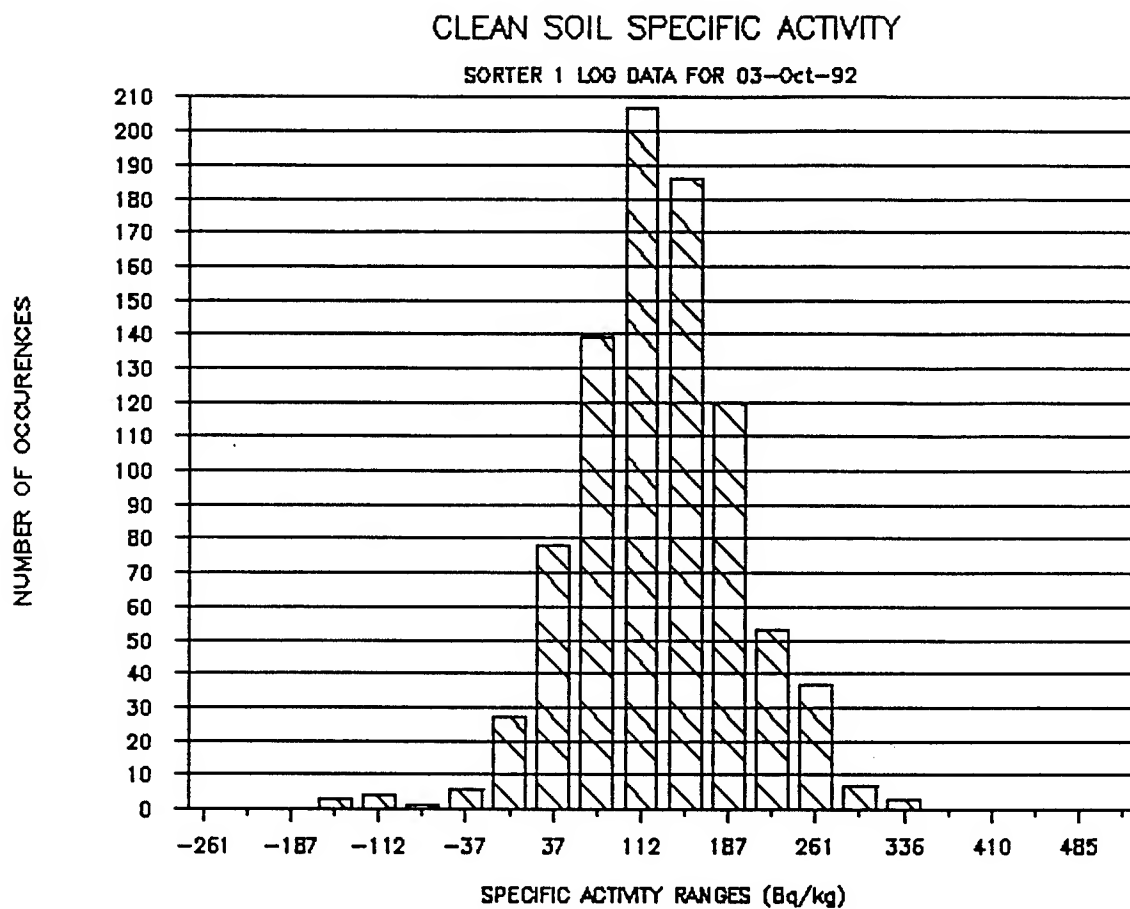
20-SEC PROCESS RECORDS	863
TOTAL SORT	0 MD>0 & MND=0
NO SORT	517 AD=0 & MD=0 & MND>0
SOME SORT	346 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	0
AD=0 & MD	0
AD<0 & MD	0

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 8,630
 2-SEC RECORDS WITH SORTS 438 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 104 83.9%
 3 DETECTORS 18 14.5%
 4 DETECTORS 2 1.6%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 124
 NET 2-SEC RECORDS WITH SORTS 314
 2-SEC PERIODS WITH NO SORTS 8,316
 AVG TIME BETWEEN 2-SEC SORTS 55.0 sec

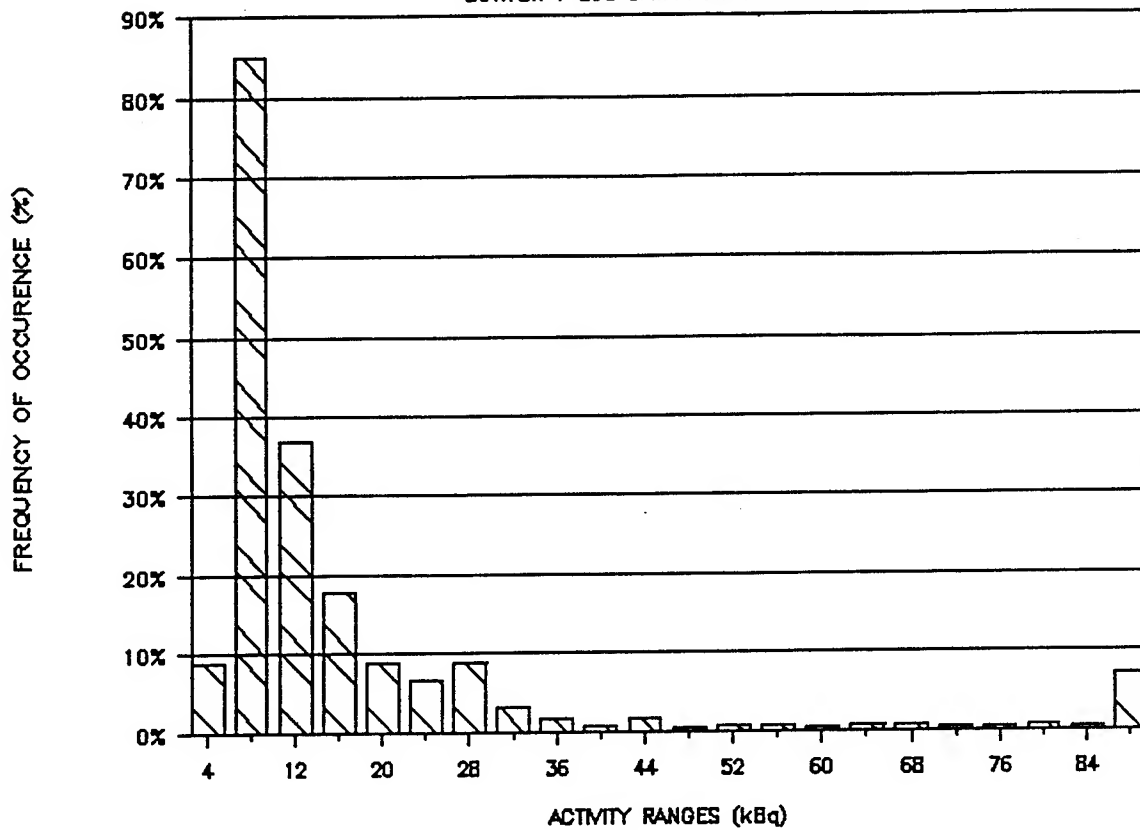
1-GATE SORTS		217	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT FREQ%		ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	3	1.6%	-14000	0	-261	4000	20	8.8%	4
2	25	13.2%	-12000	0	-224	8000	192	85.0%	8
3	32	16.9%	-10000	0	-187	12000	83	36.7%	12
4	30	15.9%	-8000	3	-149	16000	40	17.7%	16
5	47	24.9%	-6000	4	-112	20000	20	8.8%	20
6	52	27.5%	-4000	1	-75	24000	15	6.6%	24
7	25	13.2%	-2000	6	-37	28000	20	8.8%	28
8	3	1.6%	0	27	0	32000	7	3.1%	32
TOTAL	189		2000	78	37	36000	4	1.8%	36
			4000	139	75	40000	2	0.9%	40
2-GATE SORTS		221	6000	207	112	44000	4	1.8%	44
DETECTO	SORTS	FREQ%	8000	186	149	48000	1	0.4%	48
8			10000	120	187	52000	2	0.9%	52
9	11	5.0%	12000	53	224	56000	2	0.9%	56
10	29	13.1%	14000	37	261	60000	1	0.4%	60
11	38	17.2%	16000	7	299	64000	2	0.9%	64
12	41	18.6%	18000	3	336	68000	2	0.9%	68
13	56	25.3%	20000	0	373	72000	1	0.4%	72
14	39	17.6%	22000	0	410	76000	1	0.4%	76
15	7	3.2%	24000	0	448	80000	2	0.9%	80
TOTAL	221		26000	0	485	84000	1	0.4%	84
			>28000	0	0	>84000	16	7.1%	>84
			TOTAL	871		TOTAL	226		
HPE		188	GATE1	438					
MPE		223	GATE2	221					
DISE		0							

NOTE: REC code 1 = Source check; 2 = Empty belt; 3 = Test



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 03-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 03-Oct-92

AVERAGE BACKGROUND COUNT RATE	0.81 ± 0.07 c/sec		
SORTER SOIL DENSITY	1.15 tons/m ³		
GROUND SOIL DENSITY	1.65 tons/m ³		
		CONTAMINATED	CLEAN
MASS TOTAL		0.67 tons	44.7 tons
MAXIMUM/SORT		5.4 kg	53.6 kg
MINIMUM/SORT		0.7 kg	48.2 kg
WEIGHT RECOVERY OR VOLUME RECOVERY			98.5%
EQUIVALENT SOIL-IN-GROUND	0.53 yd ³	35.4 yd ³	36.0 yd ³ /day
PARTICLE ACTIVITY (MAXIMUM ESTIMATE)			
TOTAL	9,908 kBq		
MAXIMUM/SORT	252 kBq		
MINIMUM/SORT	3.4 kBq		
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	3,930 kBq	5,305 kBq	
MAXIMUM/SORT	169 kBq	17 kBq	
MINIMUM/SORT	0 Bq	-6 kBq	
SPECIFIC ACTIVITY	5,893 Bq/kg	119 Bq/kg	
WORK DAY			
WORK DAY START	07:00 AM		
PROCESSING START	07:28 AM		
PLANT STARTUP TIME		0.48 hr	
PROCESSING END	04:37 PM		
WORK DAY END	05:30 PM		
PLANT SHUTDOWN TIME		0.88 hr	
LUNCH PERIOD		0.5 hr	
WORK HOURS		10.0 hr	
MAX PROCESS HOURS (END-START)		9.14 hr	
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		4.71 hr	
TOTAL SYSTEM PAUSE TIME		0.00 hr	
TOTAL DOWNTIME (MAX-ACTUAL)		4.44 hr	
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		47.0%	
TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	942		
NONPROCESS RECORDS (Test, calibration, etc)	11		
20-SEC PROCESS RECORDS	847		
TOTAL SORT	0 MD>0 & MND=0		
NO SORT	396 AD=0 & MD=0 & MND>0		
SOME SORT	451 AD>0&0<MD<MNDmax&MND<MNDmax		
UNEXPLAINED RECORDS	0		
0<AD<1kBq & MD>0	0		
AD=0 & MD	0		
AD<0 & MD	0		

JA SOIL CLEANUP PLANT LOG SUMMARY

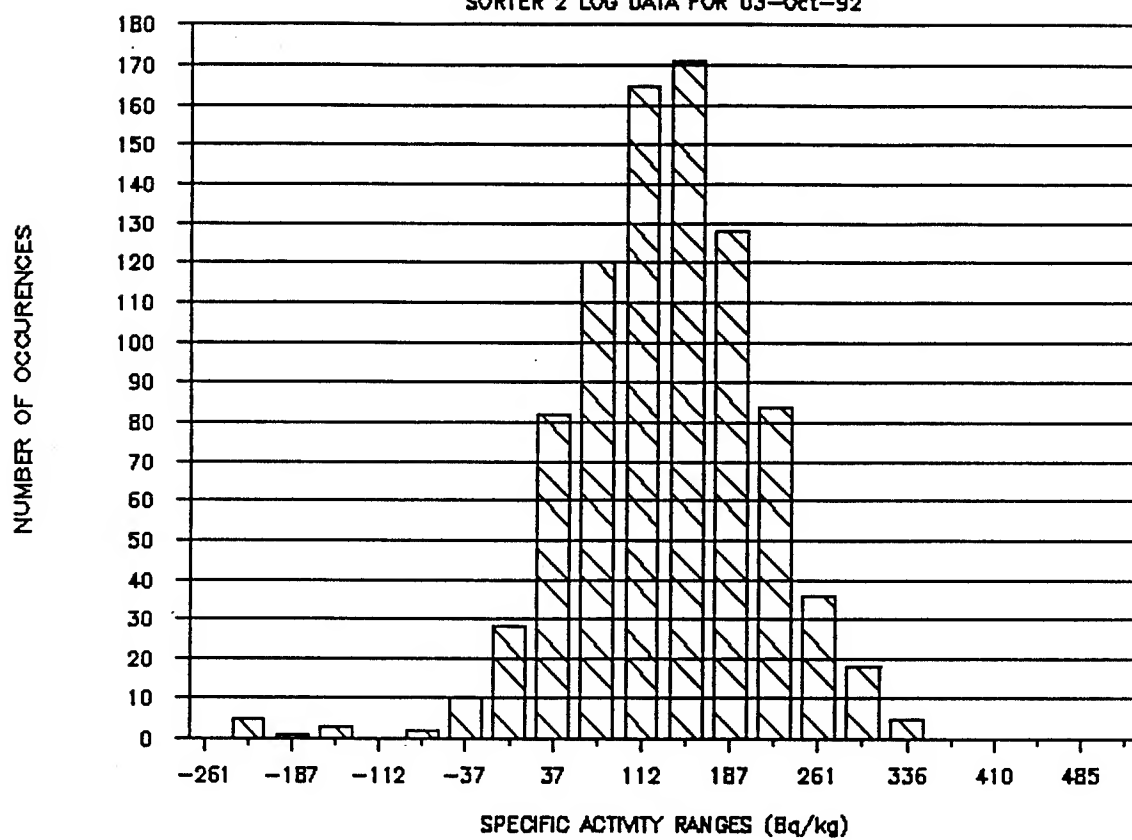
2-SEC COUNT PERIODS 8,470
 2-SEC RECORDS WITH SORTS 546 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 126 88.1%
 3 DETECTORS 17 11.9%
 4 DETECTORS 0 0.0%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 143
 NET 2-SEC RECORDS WITH SORTS 403
 2-SEC PERIODS WITH NO SORTS 8,067
 AVG TIME BETWEEN 2-SEC SORTS 42.0 sec

1-GATE SORTS		280	ACT_MD	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	4	1.6%	-14000	0	-261	4000	4	1.3%	4
2	26	10.4%	-12000	5	-224	8000	224	70.4%	8
3	50	20.0%	-10000	1	-187	12000	118	37.1%	12
4	55	22.0%	-8000	3	-149	16000	52	16.4%	16
5	49	19.6%	-6000	0	-112	20000	40	12.6%	20
6	50	20.0%	-4000	2	-75	24000	22	6.9%	24
7	37	14.8%	-2000	10	-37	28000	14	4.4%	28
8	9	3.6%	0	28	0	32000	5	1.6%	32
TOTAL	250		2000	82	37	36000	11	3.5%	36
			4000	120	75	40000	6	1.9%	40
2-GATE SORTS		266	6000	165	112	44000	2	0.6%	44
DETECTO	SORTS	FREQ%	8000	171	149	48000	7	2.2%	48
8			10000	128	187	52000	5	1.6%	52
9	16	6.0%	12000	84	224	56000	4	1.3%	56
10	30	11.3%	14000	36	261	60000	1	0.3%	60
11	58	21.8%	16000	18	299	64000	5	1.6%	64
12	51	19.2%	18000	5	336	68000	1	0.3%	68
13	51	19.2%	20000	0	373	72000	5	1.6%	72
14	40	15.0%	22000	0	410	76000	1	0.3%	76
15	20	7.5%	24000	0	448	80000	2	0.6%	80
TOTAL	266		26000	0	485	84000	1	0.3%	84
			>28000	0	0	>84000	16	5.0%	>84
			TOTAL	858		TOTAL	318		
HPE		231	GATE1		546				
MPE		338	GATE2		266				
DISE		0							

NOTE: REC code 1 = Source check; 2 = Empty belt; 3 = Test

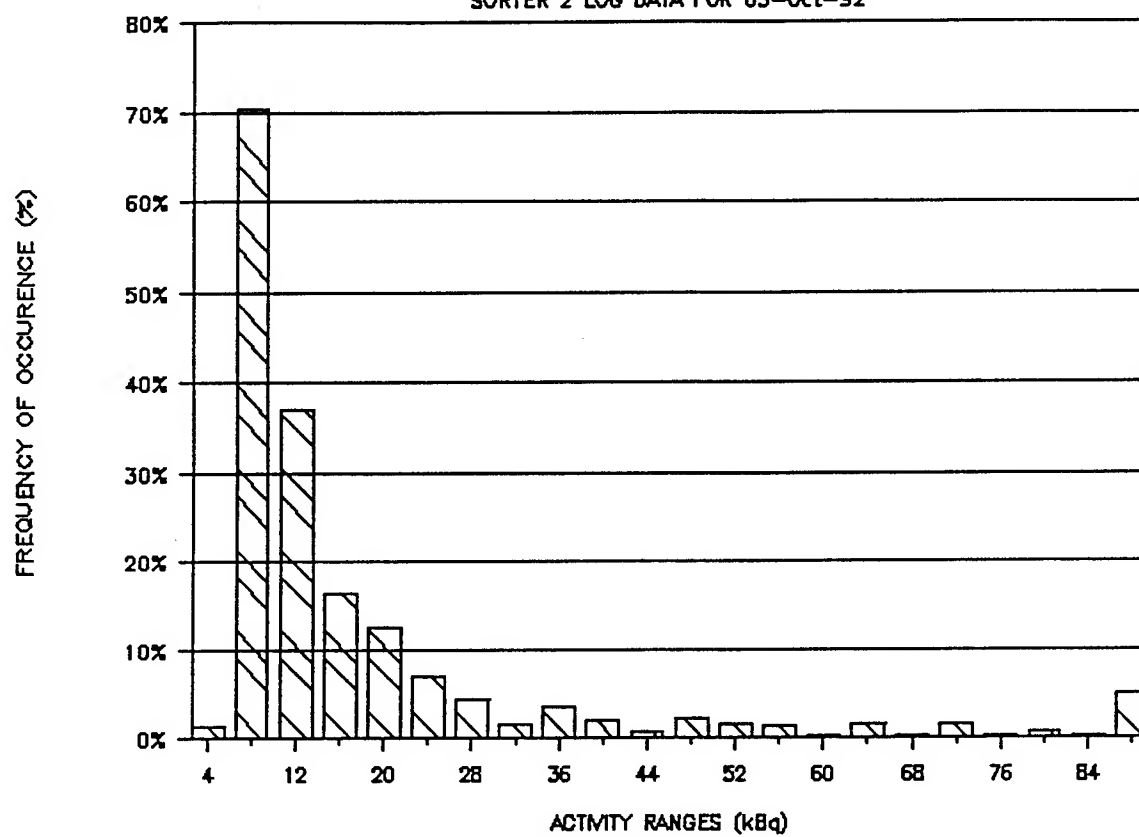
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 2 LOG DATA FOR 03-Oct-92



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 03-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 02-Oct-92

AVERAGE BACKGROUND COUNT RATE 0.78 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	0.89 tons	74.8 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	47.5 kg

		98.8%
WEIGHT RECOVERY OR VOLUME RECOVERY		
EQUIVALENT SOIL-IN-GROUND	0.71 yd³	59.3 yd³ 60.0 yd³/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	15,043 kBq
MAXIMUM/SORT	857 kBq
MINIMUM/SORT	3.1 kBq

	5,329 kBq	6,087 kBq
DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY		
MAXIMUM/SORT	581 kBq	17 kBq
MINIMUM/SORT	0 Bq	-8 kBq
SPECIFIC ACTIVITY	5,978 Bq/kg	81 Bq/kg

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	07:40 AM	
PLANT STARTUP TIME		0.68 hr
PROCESSING END	05:06 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.40 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		9.43 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		7.84 hr
TOTAL SYSTEM PAUSE TIME		0.00 hr
TOTAL DOWNTIME (MAX-ACTUAL)		1.59 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		78.4%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	1,601
NONPROCESS RECORDS (Test, calibration, etc)	47

20-SEC PROCESS RECORDS	1,412
TOTAL SORT	1 MD>0 & MND=0
NO SORT	821 AD=0 & MD=0 & MND>0
SOME SORT	590 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	0
0<AD<1kBq & MD>0	0
AD=0 & MD	0
AD<0 & MD	0

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 14,120
 2-SEC RECORDS WITH SORTS 780 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	167	87.0%
3 DETECTORS	20	10.4%
4 DETECTORS	5	2.6%
5 DETECTORS	0	0.0%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	192	

NET 2-SEC RECORDS WITH SORTS 588
 2-SEC PERIODS WITH NO SORTS 13,532
 AVG TIME BETWEEN 2-SEC SORTS 48.0 sec

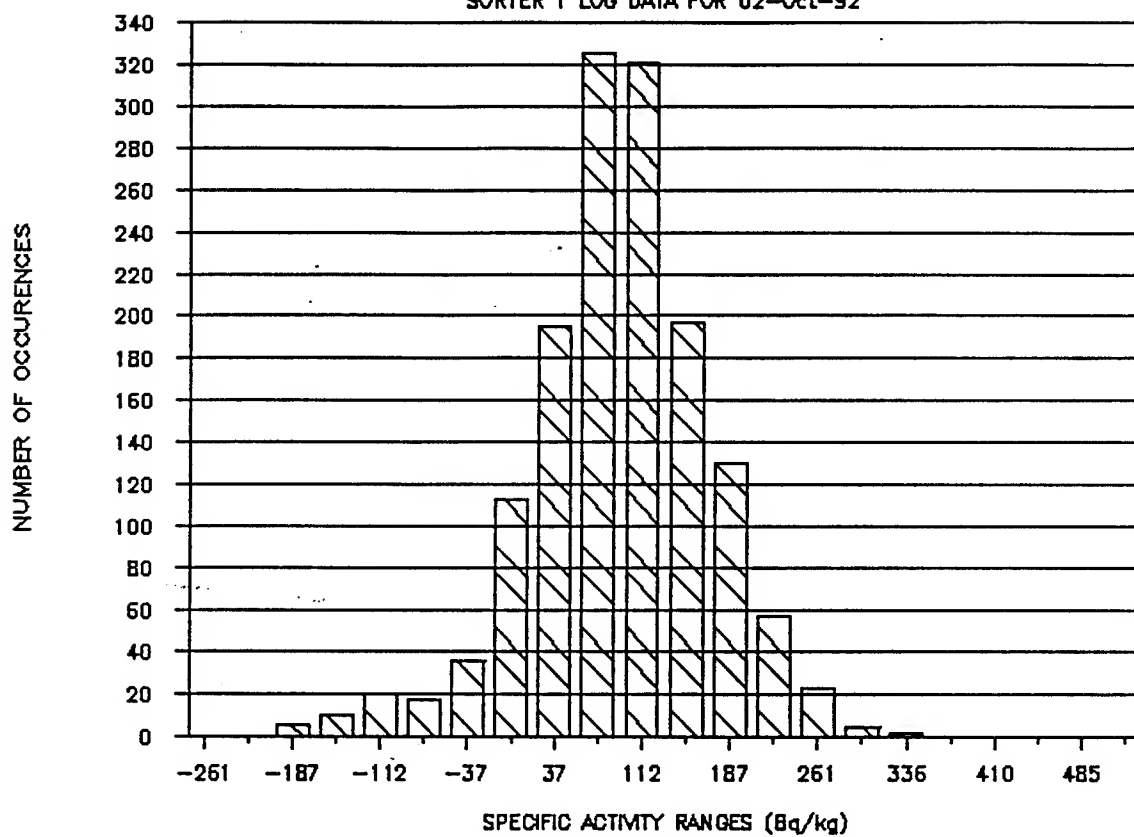
1-GATE SORTS	392	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	12	3.6%	-14000	0	-261	4000	16	3.8%
2	52	15.8%	-12000	0	-224	8000	347	82.6%
3	62	18.8%	-10000	6	-187	12000	153	36.4%
4	58	17.6%	-8000	10	-149	16000	72	17.1%
5	73	22.2%	-6000	20	-112	20000	49	11.7%
6	77	23.4%	-4000	18	-75	24000	29	6.9%
7	50	15.2%	-2000	36	-37	28000	13	3.1%
8	9	2.7%	0	113	0	32000	14	3.3%
TOTAL	329		2000	195	37	36000	11	2.6%
			4000	326	75	40000	5	1.2%
2-GATE SORTS	388		6000	321	112	44000	6	1.4%
DETECTO	SORTS	FREQ%	8000	197	149	48000	6	1.4%
8			10000	130	187	52000	8	1.9%
9	26	6.7%	12000	57	224	56000	9	2.1%
10	51	13.1%	14000	23	261	60000	4	1.0%
11	66	16.9%	16000	5	299	64000	5	1.2%
12	74	19.0%	18000	2	336	68000	2	0.5%
13	78	20.0%	20000	0	373	72000	4	1.0%
14	72	18.5%	22000	0	410	76000	4	1.0%
15	23	5.9%	24000	0	448	80000	3	0.7%
TOTAL	390		26000	0	485	84000	0	0.0%
			>28000	0	0	>84000	23	5.5%
			TOTAL	1459		TOTAL	420	

HPE	334	GATE1	780
MPE	387	GATE2	388
DISE	1		

NOTE: REC code 1 = Source check; 2 = Empty belt; 3 = Test

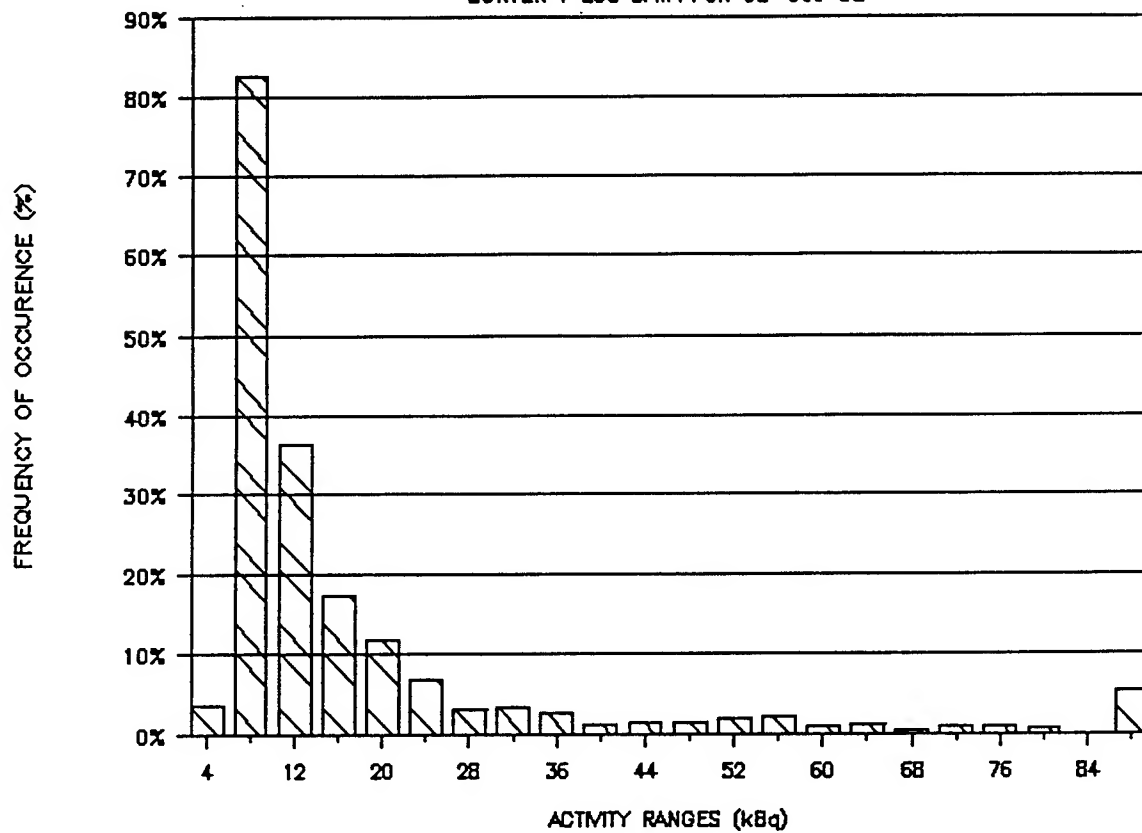
CLEAN SOIL SPECIFIC ACTIVITY

SORTER 1 LOG DATA FOR 02-Oct-92



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 02-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 02-Oct-92

AVERAGE BACKGROUND COUNT RATE 0.79 ± 0.04 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	1.09 tons	75.2 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	45.5 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		98.6%
EQUIVALENT SOIL-IN-GROUND	0.87 yd ³	59.6 yd ³ 60.5 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	26,115 kBq
MAXIMUM/SORT	2,186 kBq
MINIMUM/SORT	3.3 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY	9,413 kBq	6,392 kBq
MAXIMUM/SORT	1610 kBq	17 kBq
MINIMUM/SORT	0 Bq	-12 kBq
SPECIFIC ACTIVITY	8,618 Bq/kg	85 Bq/kg

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	07:40 AM	
PLANT STARTUP TIME		0.68 hr
PROCESSING END	05:03 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.46 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		9.37 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		7.91 hr
TOTAL SYSTEM PAUSE TIME		0.00 hr
TOTAL DOWNTIME (MAX-ACTUAL)		1.46 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		79.0%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	2,314
NONPROCESS RECORDS (Test, calibration, etc)	36

20-SEC PROCESS RECORDS	1,424
TOTAL SORT	1 MD>0 & MND=0
NO SORT	727 AD=0 & MD=0 & MND>0
SOME SORT	694 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	2
0<AD<1kBq & MD>0	0
10:26:38 AD=0 & MD	2
10:40:38 AD<0 & MD	0

JA SOIL CLEANUP PLANT LOG SUMMARY

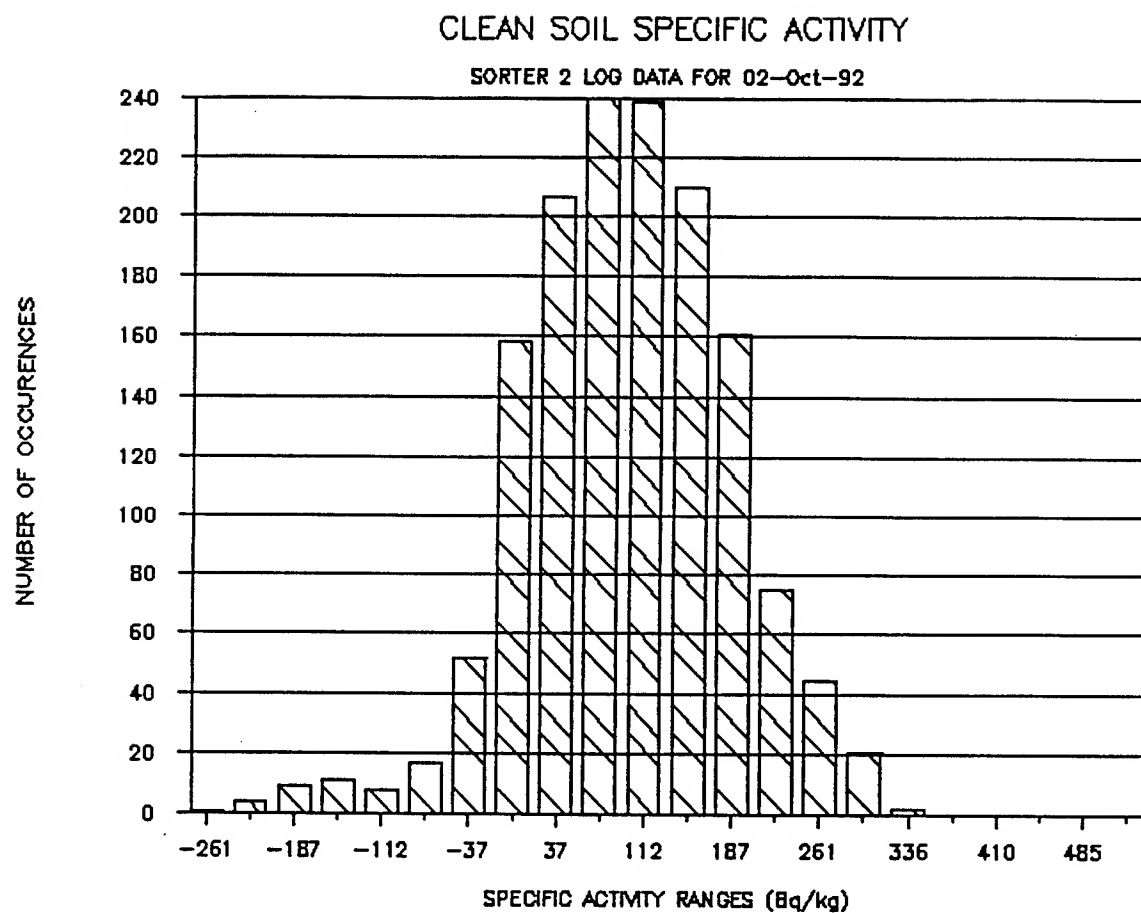
2-SEC COUNT PERIODS 14,240
 2-SEC RECORDS WITH SORTS 890 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR

2 DETECTORS	191	76.1%
3 DETECTORS	50	19.9%
4 DETECTORS	8	3.2%
5 DETECTORS	2	0.8%
6 DETECTORS	0	0.0%
7 DETECTORS	0	0.0%
8 DETECTORS	0	0.0%
TOTAL	251	

NET 2-SEC RECORDS WITH SORTS 639
 2-SEC PERIODS WITH NO SORTS 13,601
 AVG TIME BETWEEN 2-SEC SORTS 44.6 sec

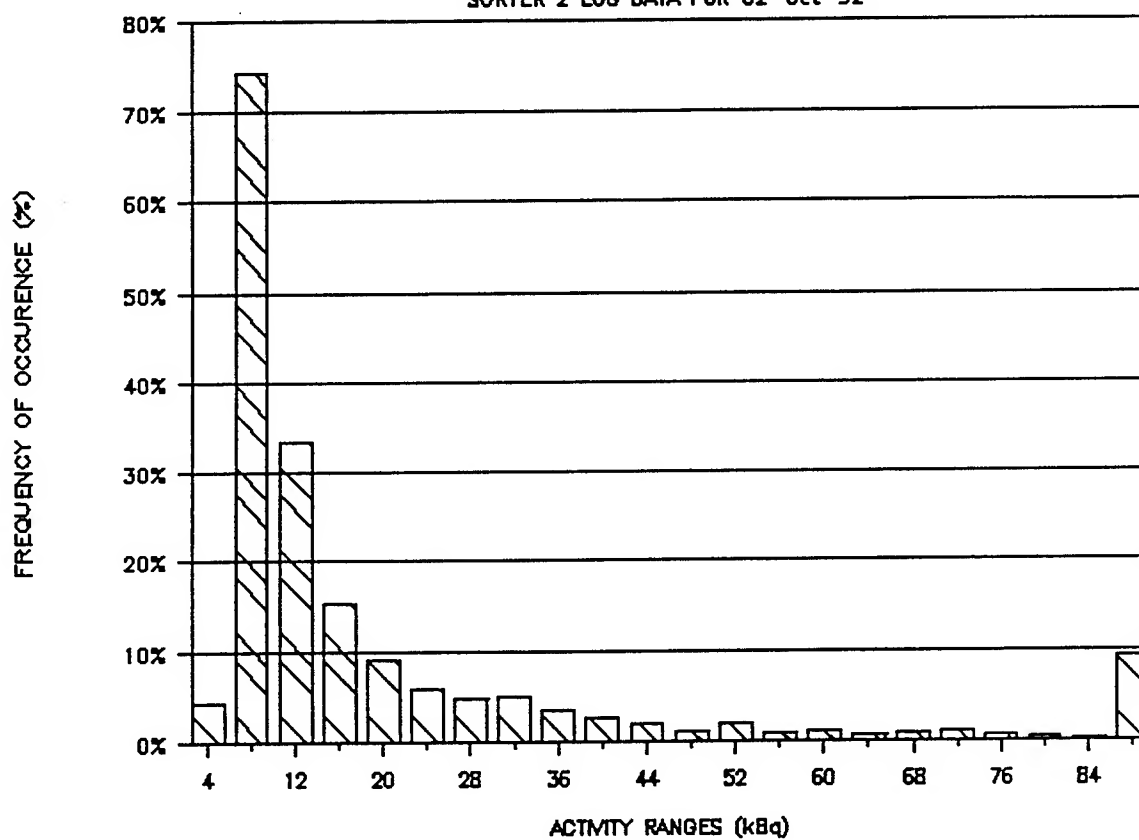
1-GATE SORTS	446	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	15	4.1%	-14000	1	-261	4000	22	4.4%
2	61	16.5%	-12000	4	-224	8000	370	74.3%
3	119	32.2%	-10000	9	-187	12000	166	33.3%
4	77	20.8%	-8000	11	-149	16000	76	15.3%
5	61	16.5%	-6000	8	-112	20000	45	9.0%
6	58	15.7%	-4000	17	-75	24000	29	5.8%
7	47	12.7%	-2000	52	-37	28000	24	4.8%
8	8	2.2%	0	158	0	32000	25	5.0%
TOTAL	370		2000	207	37	36000	17	3.4%
			4000	240	75	40000	13	2.6%
2-GATE SORTS	444	6000	239	112	44000	10	2.0%	44
DETECTO	SORTS	FREQ%	8000	210	149	48000	6	1.2%
8			10000	161	187	52000	10	2.0%
9	35	7.9%	12000	75	224	56000	5	1.0%
10	70	15.8%	14000	45	261	60000	6	1.2%
11	114	25.7%	16000	21	299	64000	3	0.6%
12	76	17.1%	18000	2	336	68000	5	1.0%
13	66	14.9%	20000	0	373	72000	6	1.2%
14	56	12.6%	22000	0	410	76000	3	0.6%
15	27	6.1%	24000	0	448	80000	2	0.4%
TOTAL	444		26000	0	485	84000	1	0.2%
			>28000	0	0	>84000	46	9.2%
			TOTAL	1459		TOTAL	498	
HPE	383		GATE1	890				
MPE	506		GATE2	444				
DISE	1							

NOTE: REC code 1 = Source check; 2 = Empty belt; 3 = Test



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 02-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 1 01-Oct-92

AVERAGE BACKGROUND COUNT RATE 0.78 ± 0.06 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	2.89 tons	55.3 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	48.2 kg

WEIGHT RECOVERY OR VOLUME RECOVERY 95.0%
 EQUIVALENT SOIL-IN-GROUND 2.29 yd³ 43.8 yd³ 46.1 yd³/day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)
 TOTAL 8,554 kBq
 MAXIMUM/SORT 383 kBq
 MINIMUM/SORT 3.2 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY
 MAXIMUM/SORT 4,618 kBq 8,310 kBq
 MINIMUM/SORT 204 kBq 20 kBq
 SPECIFIC ACTIVITY 0 Bq -10 kBq
 1,599 Bq/kg 150 Bq/kg

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	08:41 AM	
PLANT STARTUP TIME		1.69 hr
PROCESSING END	04:50 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.67 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		8.16 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		6.03 hr
TOTAL SYSTEM PAUSE TIME		2.14 hr
TOTAL DOWNTIME (MAX-ACTUAL)		2.13 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		60.2%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC) 1,059
 NONPROCESS RECORDS (Test, calibration, etc) 10

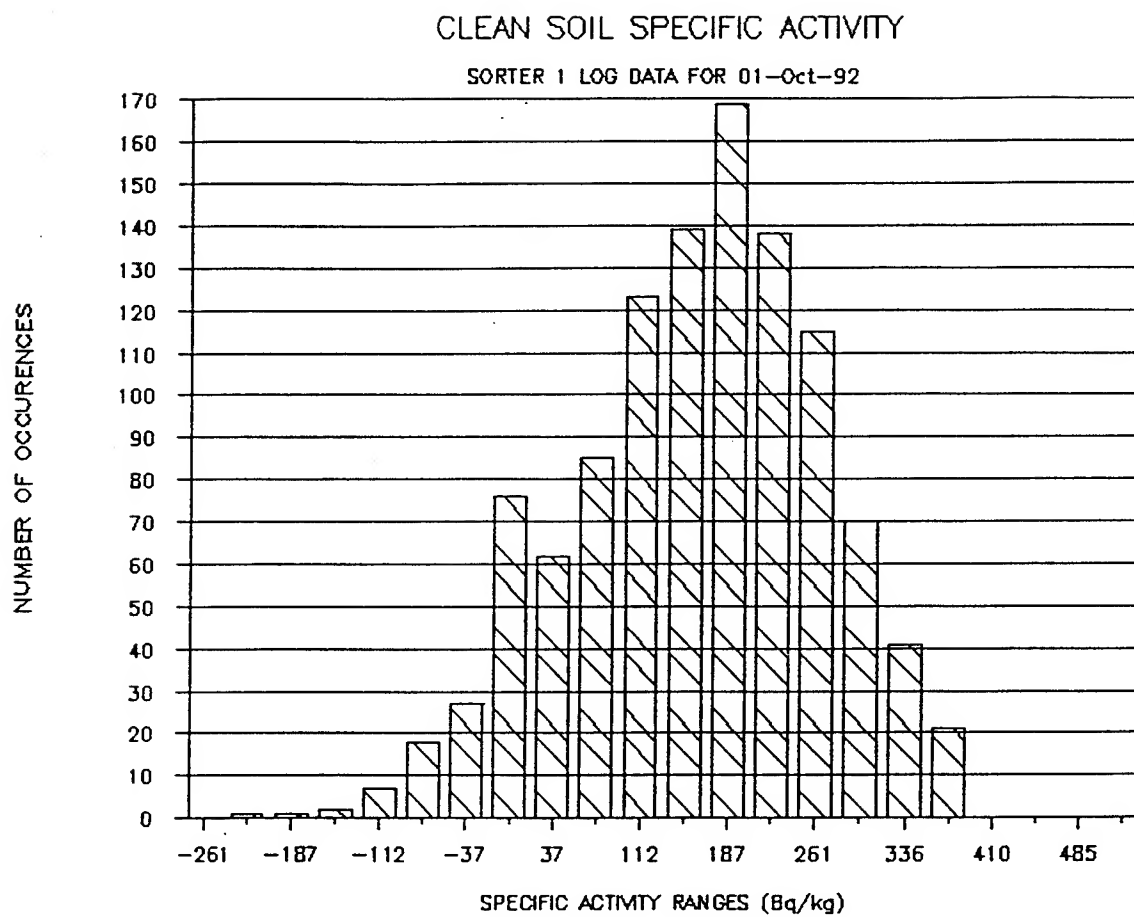
20-SEC PROCESS RECORDS		1,085
TOTAL SORT		40 MD>0 & MND=0
NO SORT		531 AD=0 & MD=0 & MND>0
SOME SORT		514 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS		0
0<AD<1kBq & MD>0	2	
AD=0 & MD	0	
AD<0 & MD	0	

JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 10,850
 2-SEC RECORDS WITH SORTS 526 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 107 84.3%
 3 DETECTORS 18 14.2%
 4 DETECTORS 2 1.6%
 5 DETECTORS 0 0.0%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 127
 NET 2-SEC RECORDS WITH SORTS 399
 2-SEC PERIODS WITH NO SORTS 10,451
 AVG TIME BETWEEN 2-SEC SORTS 54.4 sec

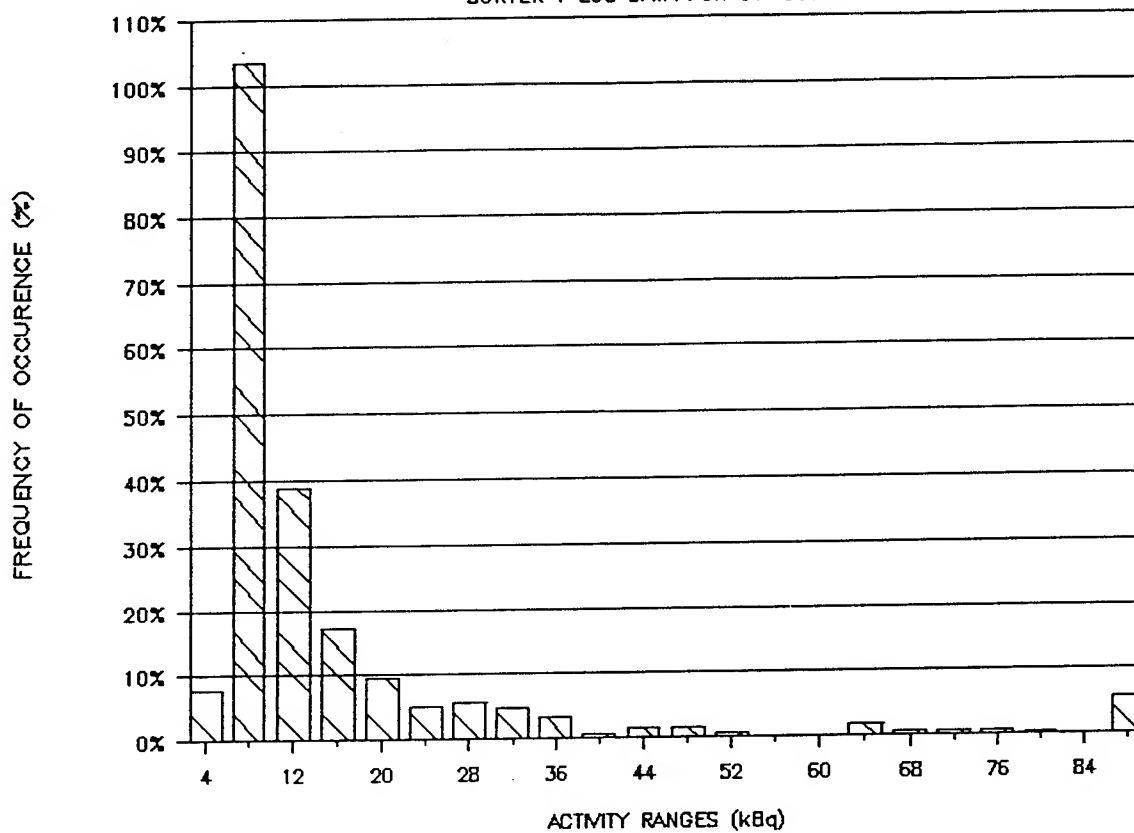
1-GATE SORTS	265	ACT_ND	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)	(kBq)
1	10	4.3%	-14000	0	-261	4000	19	7.6%
2	22	9.4%	-12000	1	-224	8000	258	103.6%
3	26	11.2%	-10000	1	-187	12000	97	39.0%
4	39	16.7%	-8000	2	-149	16000	43	17.3%
5	65	27.9%	-6000	7	-112	20000	24	9.6%
6	55	23.6%	-4000	18	-75	24000	13	5.2%
7	45	19.3%	-2000	27	-37	28000	14	5.6%
8	3	1.3%	0	76	0	32000	12	4.8%
TOTAL	233		2000	62	37	36000	8	3.2%
			4000	85	75	40000	2	0.8%
2-GATE SORTS	261	6000	123	112	44000	4	1.6%	44
DETECTO	SORTS	FREQ%	8000	139	149	48000	4	1.6%
8			10000	169	187	52000	2	0.8%
9	14	5.4%	12000	138	224	56000	0	0.0%
10	22	8.4%	14000	115	261	60000	0	0.0%
11	36	13.8%	16000	70	299	64000	5	2.0%
12	54	20.7%	18000	41	336	68000	2	0.8%
13	70	26.8%	20000	21	373	72000	2	0.8%
14	50	19.2%	22000	0	410	76000	2	0.8%
15	15	5.7%	24000	0	448	80000	1	0.4%
TOTAL	261		26000	0	485	84000	0	0.0%
			>28000	0	0	>84000	14	5.6%
			TOTAL	1095		TOTAL	249	
HPE	247		GATE1	526				
MPE	442		GATE2	261				
DISE	40							

NOTE: REC code 1 = Source check; 2 = Empty belt; 3 = Test



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 1 LOG DATA FOR 01-Oct-92



JA SOIL CLEANUP PLANT LOG SUMMARY

SORTER 2 01-Oct-92

AVERAGE BACKGROUND COUNT RATE 0.79 ± 0.05 c/sec
 SORTER SOIL DENSITY 1.15 tons/m³
 GROUND SOIL DENSITY 1.65 tons/m³

	CONTAMINATED	CLEAN
MASS TOTAL	6.04 tons	51.6 tons
MAXIMUM/SORT	53.6 kg	53.6 kg
MINIMUM/SORT	0.7 kg	45.5 kg

WEIGHT RECOVERY OR VOLUME RECOVERY		89.5%
EQUIVALENT SOIL-IN-GROUND	4.79 yd ³	40.9 yd ³ 45.7 yd ³ /day

PARTICLE ACTIVITY (MAXIMUM ESTIMATE)

TOTAL	10,328 kBq
MAXIMUM/SORT	548 kBq
MINIMUM/SORT	3.3 kBq

DISPERSED + PARTICLE (REALISTIC ESTIMATE) ACTIVITY		
MAXIMUM/SORT	7,416 kBq	7,750 kBq
MINIMUM/SORT	311 kBq	19 kBq
SPECIFIC ACTIVITY	-373 Bq	-11 kBq
	1,228 Bq/kg	150 Bq/kg

WORK DAY

WORK DAY START	07:00 AM	
PROCESSING START	08:40 AM	
PLANT STARTUP TIME		1.68 hr
PROCESSING END	04:47 PM	
WORK DAY END	05:30 PM	
PLANT SHUTDOWN TIME		0.71 hr
LUNCH PERIOD		0.5 hr
WORK HOURS		10.0 hr
MAX PROCESS HOURS (END-START)		8.12 hr
ACTUAL PROCESS HOURS (TOTAL 20-SEC SORT PERIODS)		5.98 hr
TOTAL SYSTEM PAUSE TIME		0.00 hr
TOTAL DOWNTIME (MAX-ACTUAL)		2.14 hr
TIME UTILIZATION (ACTUAL HRS/WORK HRS)		59.7%

TOTAL SOIL PROCESSING RECORDS (2-SEC and 20-SEC)	1,697
NONPROCESS RECORDS (Test, calibration, etc)	19

20-SEC PROCESS RECORDS	1,076
TOTAL SORT	96 MD>0 & MND=0
NO SORT	408 AD=0 & MD=0 & MND>0
SOME SORT	570 AD>0&0<MD<MNDmax&MND<MNDmax
UNEXPLAINED RECORDS	2
10:22:36 0<AD<1kBq & MD>0	6 11:21:16
10:42:56 11:17:16 AD=0 & MD	0 11:21:36
10:43:56 11:20:16 AD<0 & MD	2 11:21:56

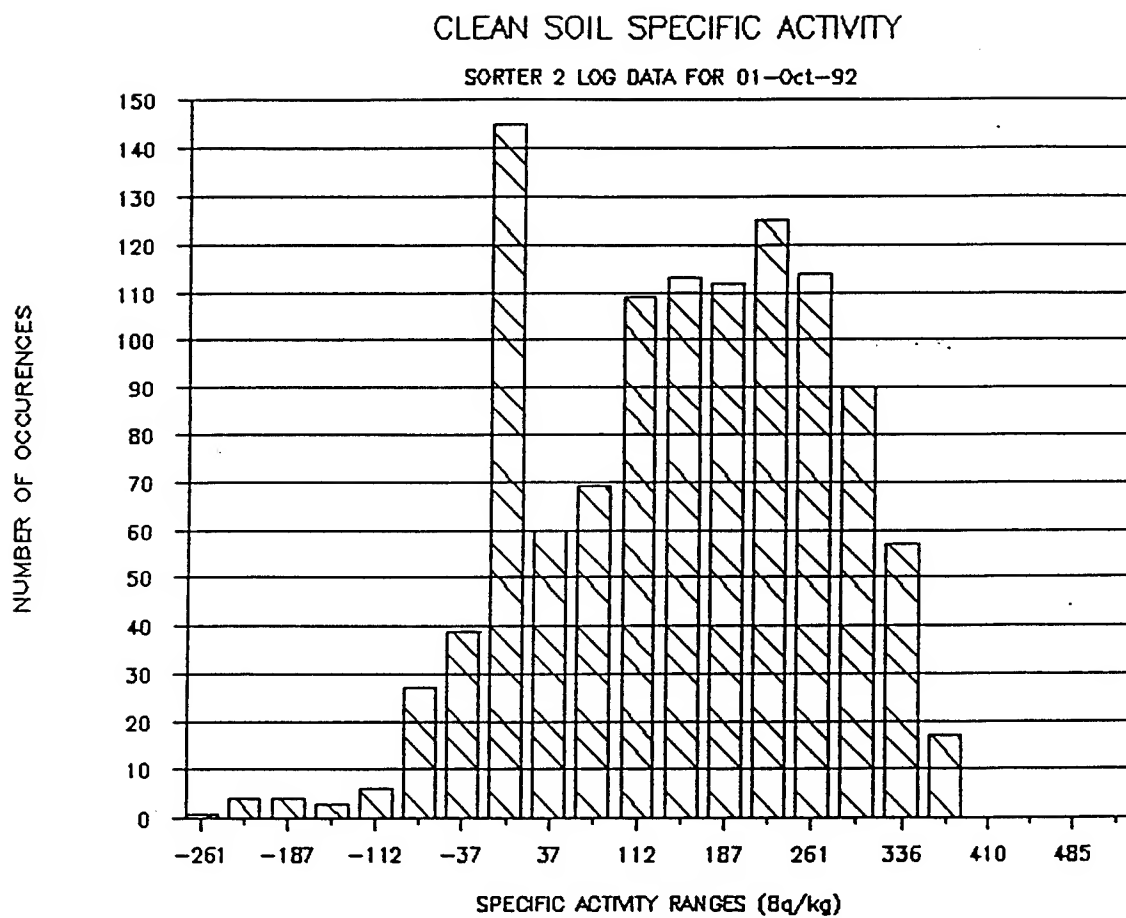
JA SOIL CLEANUP PLANT LOG SUMMARY

2-SEC COUNT PERIODS 10,760
 2-SEC RECORDS WITH SORTS 621 AP>0
 2-SEC RECORDS WITH POSITIVES IN >1 DETECTOR
 2 DETECTORS 128 85.3%
 3 DETECTORS 20 13.3%
 4 DETECTORS 1 0.7%
 5 DETECTORS 1 0.7%
 6 DETECTORS 0 0.0%
 7 DETECTORS 0 0.0%
 8 DETECTORS 0 0.0%
 TOTAL 150

NET 2-SEC RECORDS WITH SORTS 471
 2-SEC PERIODS WITH NO SORTS 10,289
 AVG TIME BETWEEN 2-SEC SORTS 45.7 sec

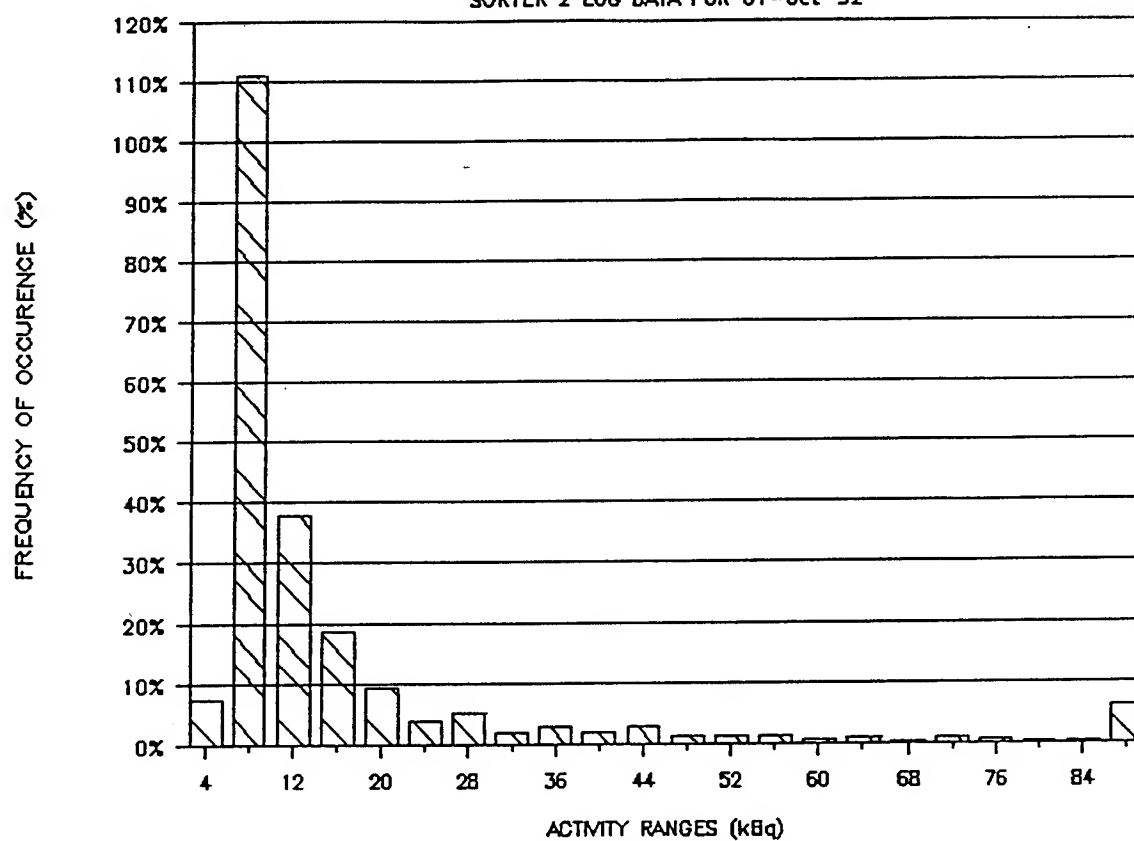
1-GATE SORTS		294	ACT_NO	NUMBER	SPEC_A	ACT_P	SORT	FREQ%	ACT_P
DETECTO	SORTS	FREQ%	(Bq)	(#)	(Bq/kg)	(Bq)	(#)		(kBq)
1	5	2.0%	-14000	1	-261	4000	21	7.4%	4
2	36	14.2%	-12000	4	-224	8000	316	111.3%	8
3	62	24.5%	-10000	4	-187	12000	107	37.7%	12
4	57	22.5%	-8000	3	-149	16000	53	18.7%	16
5	57	22.5%	-6000	6	-112	20000	27	9.5%	20
6	41	16.2%	-4000	27	-75	24000	11	3.9%	24
7	33	13.0%	-2000	39	-37	28000	15	5.3%	28
8	3	1.2%	0	145	0	32000	6	2.1%	32
TOTAL	253		2000	60	37	36000	8	2.8%	36
			4000	69	75	40000	6	2.1%	40
			6000	109	112	44000	8	2.8%	44
2-GATE SORTS		327	8000	113	149	48000	4	1.4%	48
DETECTO	SORTS	FREQ%							
8			10000	112	187	52000	4	1.4%	52
9	14	4.3%	12000	125	224	56000	4	1.4%	56
10	45	13.8%	14000	114	261	60000	2	0.7%	60
11	71	21.7%	16000	90	299	64000	3	1.1%	64
12	63	19.3%	18000	57	336	68000	1	0.4%	68
13	52	15.9%	20000	17	373	72000	3	1.1%	72
14	43	13.1%	22000	0	410	76000	2	0.7%	76
15	39	11.9%	24000	0	448	80000	1	0.4%	80
TOTAL	327		26000	0	485	84000	1	0.4%	84
			>28000	0	0	>84000	18	6.3%	>84
			TOTAL	1094		TOTAL	284		
HPE	278		GATE1	621					
MPE	566		GATE2	327					
DISE	96								

NOTE: REC code 1 = Source check; 2 = Empty belt; 3 = Test



JA SOIL CLEANUP PLANT HOT PARTICLES

SORTER 2 LOG DATA FOR 01-Oct-92



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DNA-TR-93-168-V2

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